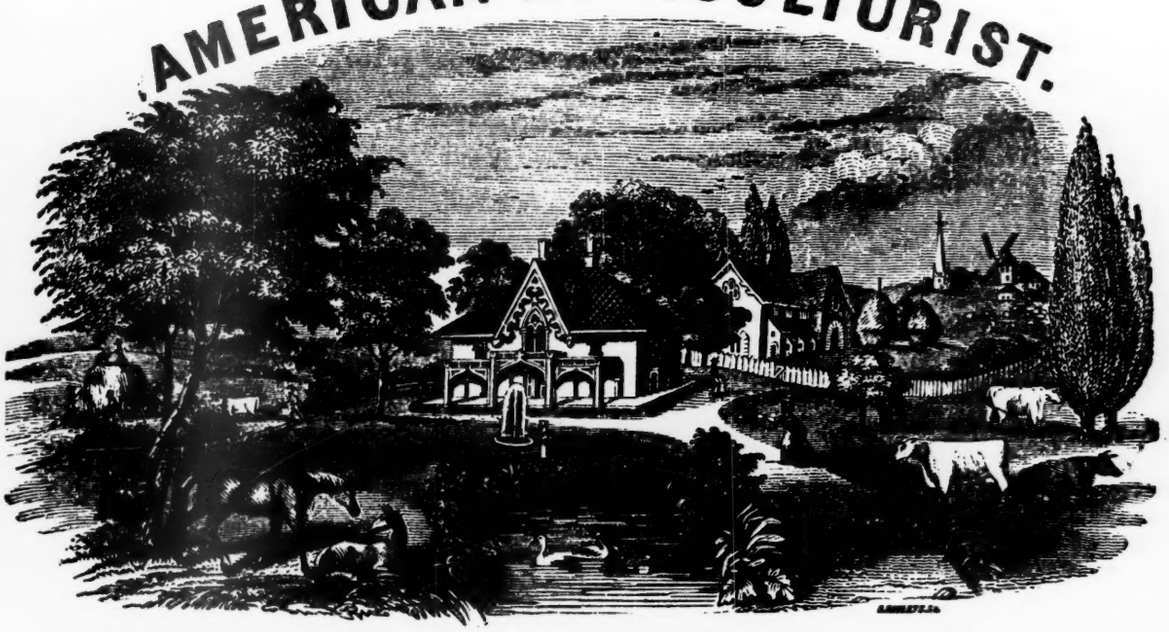
AMERICAN AGRICULTURIST.



Agriculture is the most healthful, the most useful, and the most noble employment of man.—WASHINGTON.

VOL. IV. NEW YORK, NOVEMBER, 1845. NO. XI.

A. B. ALLEN, Editor. SAXTON & MILES, Publishers, 205 Broadway.

CELLARS.

THE cellar is really one of the most important rooms in the farmer's house. There are several very important qualifications which it may be well enough to mention, inasmuch as a great many neglect to provide them, notwithstanding their great utility and the trifling expense of so doing.

The cellar should be warm in winter, and cool in summer. This condition will be secured by having it entirely under ground, or banked up on all sides.

It should be perfectly dry, and if the earth on the bottom will not absorb whatever moisture finds its way on to it, drains should be made to conduct it off.

It should be well ventilated, which in winter may be sufficiently well done by having a fire-place, or large ventilator connected with the chimney. In summer open grated windows on all sides should allow a free circulation of air.

It should be light, which may be secured by windows, open in summer, and if the cellar be liable to freezing, the difficulty may be obviated, by having a double sash to each window.

It should be clean, every substance, vegetable or animal, subject to putrefaction, should be cleared out, and especially in the spring, as warm weather approaches, and the vegetables are used up; there should be a thorough overhauling and cleansing of every part, and the walls should be white-washed. Unslaked lime scattered around the bottom, or in shallow vessels, will absorb any noxious air, and purify it.

It should be rat-proof. This is easily enough accomplished, by having tight stone, or brick walls; and if inroads are made under ground, they can be excluded by paving with large flat stones, closely joined. Brick are not suitable for this purpose, for if they once get under the flooring and commence their burrowing, they will sometimes move earth enough to cause the bricks to fall out of place, make the floor uneven, and furnish themselves with holes large enough to get into the cellar. The increased size of the stones will effectually prevent this result. If rats are not absolutely excluded, there is no way of avoiding them. They won't catch themselves in traps, and they are too cunning to eat poison long at a time; and as for keeping cats and terriers to catch them, one may about as well keep the rats as their destroyers.

There remains but one more essential, and the cellar is complete. It should be convenient of access, both from the outside for bringing in and delivering articles in quantities, and equally so to the kitchen and sheds above. The subdivisions and arrangements for accommodating whatever is required, may be made to suit the taste or wants of each person as they may choose.

DRY STABLES FOR CATTLE.

WE believe a dry, naked plank floor is better for cattle, even in the coldest weather, than a wet one, well littered with straw. This can be easily enough secured by having a short length of plank, just long enough for the cattle to stand on, resting upon others in the rear, which should extend lengthwise of the stables, and at right angles with the former. It would be still better to have the first plank in the rear of the cattle, fashioned into a shallow trough, descending gently towards one, or from the centre, towards both ends of the stable, where the liquid voided would run off at once, and might thence be conducted into a reservoir, or on to a muck heap. A little regard to the comfort of the dumb beasts, will be consulting the owner's best interest. If they must find shelter in the yard, they should be provid-

ed with snug dry sheds around the windy sides, so as effectually to protect them against the rains, snows and sleet, and the rough cold blasts. It is better that these should also be provided with substantial plank floors, descending towards the centre of the yard, so as to drain off whatever liquid falls upon them. These floors should always be kept clean, and they will consequently be much dryer and more comfortable. If there be any straw to spare, it should be appropriated to these open sheds, in preference to the stables, as the increased warmth thereby imparted to the cattle, is still less than in the well boarded building.

TO ECONOMISE FOOD FOR STOCK.

THE great scarcity of hay and fodder, owing to the excessive drought of the past season, will make it necessary, on the part of the farmers, to economise their food the coming winter to the utmost. In addition to procuring cutters to chop up the hay, straw, and corn-stalks, cooking the food in many instances may be resorted to with economy.

Take a boiler of 50 gallons, into this put 25 lbs. of bran, 3 bushels of vegetables (clean washed), and sufficient water to cover the whole, stir them well up together, and let them simmer four or five hours at nearly a boiling heat, and then pour out into tubs or barrels, and feed the mixture about blood warm. If the food is for work horses or oxen, a little Indian, oat, or barley meal should be added to the above to make it heartier.

It is astonishing how well stock will keep on a cooked mess of this kind, and how much less hay they will eat. Some reckon the hay under these circumstances at one third of the ordinary ratio of 21 lbs.; but if it saves one half, at the present high price, it will be deserving of practice. For the animals which are not at work, cut straw or corn-stalks will answer well instead of hay—especially the latter. Some go so far as to say that the hay could also be simmered with economy; but as this would require a very large kettle, we much doubt it. Simmering is preferable to steaming, because it preserves all the juices of every substance employed in making up the mess; this, however, requires a very large kettle, which is quite expensive. For steaming purposes, a well jointed box, or a tight hogshead, may be employed, and a small boiler with a pipe to conduct the steam into them. We need not describe such, as they are to be found in every neighborhood. Mott's stove boilers, holding from 15 to 120 gallons, and costing from $9 to $40 each, are an admirable contrivance for cooking food, and may be had in this city. We will further add, that by supplying horses and cattle with cooked food, they eat it up in a short time, and then lie down to rest, and are thus enabled to do more work, and keep in better condition than if fed on dry food.

TO PREVENT TOOLS FROM RUSTING.—The surest way is to keep them bright by constant use; but as the plow, hoe, and scythe, are not used in winter, nor the axe to much extent in summer, some method should be devised to prevent rust. This may in all cases be effectually prevented by wiping perfectly clean, and giving to the tool a complete coating of oil or grease, free from salt, and then hang or put it away in a dry place.

LAWS FOR THE DESTRUCTION OF NOXIOUS WEEDS.

THERE are some legislative enactments, we believe, for the destruction of weeds; one of which requires the *path-masters* to see that all within the public grounds or highways in their districts are exterminated. We wish some of our subscribers who are familiar with the statute provisions on this subject, would give or send us an epitome of the several acts relating to this matter, referring to the volume and page where they are to be found. We wish to bring this important subject to the attention of our State functionaries, and farmers, and make them aware of their penalties as well as privileges.

It is a crying sin as well as shame that such pests as the Canada-thistle, and other kindred weeds, are permitted to grow, and thrive, and seed, and propagate in the highways and byeways, and over one's neighbor's fields, to the annoyance and robbery of an industrious, honest man's labors. He carefully tills his own land, and sedulously exterminates every bastard plant from his fields; yet his idle, thriftless, and perhaps malevolent neighbors;—or that busy, bustling, but generally neglectful, wasteful, profligate personage, *the public*, allow their domains to run to unconditional waste. Look, for instance, to whole acres of the Canada thistle lining the banks of the Erie canal in the neighborhood of Rochester and elsewhere, producing seed enough annually to stock the entire State of New York. It is a matter of special wonder, that the intelligent farmers of old Monroe have not had every canal commissioner who has held the office within the last ten years, indicted for this culpable neglect. We repeat, that we wish some of our friends familiar with this subject, would give us all the laws relating to it, and if we have not such as are sufficiently stringent, let us have them at once, that honest industry may not be robbed of its dues by culpable neglect.

AMERICAN AGRICULTURAL ASSOCIATION.

THE regular monthly meetings of this Association commenced again at the Historical Society's rooms, on the first of October, Hon. Luther Bradish, the President, in the chair. After the minutes of the last meeting were read, several articles were exhibited which had been received as donations to the Association; among which were several specimens of grain from the estate of the late Earl of Leicester, of England.

A communication was read from Mr. Samuel Weller, of Brinklyville, North Carolina, upon the subject of the vine culture, and detailing his mode of making wine.

A communication was also received from D'Jay Browne, Esq., offering his resignation as corresponding secretary of the Association. His resignation was accepted, and Mr. Andrew H. Green was elected to fill the vacancy.

W. A. Seeley, Esq., read an interesting paper upon the subject of electro-galvanic influence on the growth of plants. After some other business relating to the Society was transacted, the meeting adjourned, to meet again on the evening of the first Wednesday in November. They have been suspended since May, in consequence of so many of the members being absent in the country. The meetings will now be regular during the winter and spring.

EIGHTEENTH ANNUAL SHOW AND FAIR OF THE AMERICAN INSTITUTE.

This was commenced on the 6th of October, and continued till the 25th, and was visited by a much larger concourse of people than ever before known. It was held, as usual, at Niblo's garden, and the arrangements throughout by the excellent managers, gave very general satisfaction.

The Ornamental and manufacturing Departments.—These rooms were unusually full—the fabrics of all kinds, choice and varied, showing some decided improvements the past year in these arts. America may now well vie with Europe in the production of all that administers to the comforts and elegancies of life.

Flowers, Fruits, Vegetables, and Grain.—The display of these was not as extensive as usual, owing probably to the drouth of the past season. But what this department lacked in quantity was made up in quality, especially in the fruits; and we may well say, that we never saw them so select, showing that the gardeners and nurserymen are properly exerting themselves in their several departments. As usual, the exhibition was greatly indebted to Boston, Salem, and other towns in Massachusetts, where we are considerably excelled in horticulture. We are very glad to see our neighbors among us with their handiwork, and productions; but we trust that they will not always outshow us, and that New York will ultimately do justice to herself in this important department of husbandry. Of the private exhibitions, Mr. Pell, of Ulster county, as usual, made the best display.

Agricultural Implements.—Here we observed a marked improvement. A superb display of plows eclipsing all present, of a great variety of patterns, from the manufactory of Ruggles, Nourse & Mason, of Worcester, Mass.; a few from several other manufactories; a superior newly invented hand corn-sheller, separating the corn and cob, by Thos. D. Burrall, of Geneva, N. Y.; also, an improved clover separating machine from the same; a new horse-power corn-sheller, from Mr. Buckley, of Milton, N. Y., shelling 100 bushels per hour; a cornstalk cutter and grinder, by the Messrs. Wheeler, of Poughkeepsie, N. Y.; a grain reaper, by Obed Hussey, of Baltimore, Md.; and a patent horse-rake, with teeth made of steel wire, so as to spring over any small obstacle it may encounter in raking, and instantly recover their places in passing it. We were assured it worked on uneven or rocky ground, where the wooden-toothed horse-rake would be nearly useless. But the most important improvement that we found this year, was the hemp and flax-dressing machine, brought from Missouri, by Mr. Billings. This machine is destined to exert a great influence in the production of these articles, and with its aid we think this country will soon be enabled not only to stop importations, but to export in large quantities. The rotting of the hemp and flax is performed in three or four days, in vats filled with warm water. By this process it is said to be more evenly and perfectly done than by any other method. The crude mass is then dried in a hot-house, and afterwards broken by passing through fluted cylinders, and perpendicular knives falling upon it, like the divisions of the common hand-break; it is then swingled in another machine by a drum with beaters attached, something similar to those of the beater thresher. Mr. Billings informed us that six hands can rot, break, and swingle about two tons of dressed flax or hemp per week; and that the hemp thus cleaned has been tested by the Navy Department, and proves one-fifth stronger than the best Russia hemp.

Farmers, Gardeners, and Silk-Growers' Convention.—This commenced on the 9th, and continued three days. Several hundred persons were present the first day from various parts of the Union. General Tallmadge presided. We heard many of the farmers complain that they were afflicted with a long speech from the President on the tariff, a thing well enough in its way, but quite out of place in such a Convention. Whether it was for this cause or some other, scarce two score of people were present the second day. Considerable desultory discussion took place on various subjects; but we find it difficult to seize on any important facts to report in our condensed columns. Mr. Robinson, of Indiana, chairman of the committee appointed to prepare an address to the people of the United States, submitted one of much interest. Discussions then took place on the ravages of the wheat fly, raising peaches, the cotton crop, culture of the grape, silk, and the potato rot, when the convention adjourned without day, after talking about meeting in a southern city next year.

Plowing and Spading Match.—This came off in a field adjoining the residence of Charles Henry Hall, Esq., of Harlem, on the 14th, and struck us as being rather a poor affair. Such trials prove neither one thing nor another; and we must confess, that at the present advanced state of agricultural knowledge, we look upon them as a loss of time and money, without any particular beneficial result to the farming community. If the draught of plows and their manner of working could be scientifically and exactly tested, it would conduce to their improvement; but in this loose way it does not, and an indifferent implement often takes the highest premium.

The space plowed was one-eighth of an acre to be completed in an hour. The first done was in 48 minutes. We shall give the official report of the prizes hereafter, as well as those for the test of the draught of plows by the dynamometer. Not approving the manner in which such trials are made, the most extensive manufacturers of this implement made no entries. The competition therefore was limited. The soil was a light sandy loam.

The spading ground was 20 feet long, by 10 feet wide. It was dug in from 18 to 23 minutes—only four entries.

Mr. Meigs, of the American Institute, now mounted a cart and announced the winners of the various prizes; he then introduced Mr. Crane, of Virginia, who made a short and capital off-hand speech, when the assemblage left the field.

Cattle Show.—This was held at an enclosed plot of ground between twenty-third and twenty-fourth

streets, near the intersection of Broadway and the Fifth Avenue. The show of horses, especially stallions, was unusually fine. As to other things it was about an average. Sales to some extent were effected after the show was over, and we are pleased to see, that holding a fair for sales is becoming more and more an important consideration at such places. If the American Institute would make its exhibitions one month earlier, the show and fair we are persuaded would be more extensive, and much more numerously attended. The official list of premiums we shall give hereafter.

Lectures and speeches followed each other in succession, at various places and on different subjects, during the Eighteenth Exhibition of the American Institute, and we are glad to observe that an increasing interest is manifest in the public mind on the highly important matter of promoting the cause of agriculture, and the domestic industry of the country.

GENERAL AGENCY OF THE AMERICAN AGRICULTURIST.

It gives us pleasure to announce to our friends, and we are well assured that it will give equal pleasure to them to hear, that the old and familiar acquaintance of all readers of agricultural papers, Solon Robinson, Esq., of Indiana, has taken the general agency of our periodical, and leaves home the last part of this month upon a tour of observation through Indiana, Ohio, Maryland, Virginia, and so south as far as Alabama, along the Atlantic coast, to spread our work, and collect and report facts for the benefit of our readers. Mr. Robinson has been an occasional correspondent of the Agriculturist ever since it was established, and for other papers for a dozen years past, some of which he has done much to build up and bring into notice. He has travelled over most of the United States, and possesses a large fund of information to communicate, as well as a disposition to acquire more.

We are persuaded that Mr. Robinson's reconnaissance will be particularly agreeable at the south; for upon the subject of which southerners are somewhat jealous of interference, we can assure them that they will be pleased to communicate with him. Our journal was the first that started at the north, with the avowed intention of giving a due share of its pages to the interests and agriculture of the south; and we do not hesitate to say, that through the kind favors and contributions of southern planters, it has been one of the best exponents of their agriculture ever published; and this department we mean to increase rather than diminish.

Mr. Robinson is to act as agent for the American Agriculturist, and receive subscriptions or orders for bound volumes, as well as any other of the numerous works published or sold by Messrs. Saxton & Miles. He will also receive orders for any agricultural implements which we keep for sale in our recently established warehouse; and for the celebrated improved plows or other implements manufactured by Messrs. Ruggles, Nourse & Mason, of Boston, and Worcester, Massachusetts; and also everything in the garden and nursery line of Messrs. Parsons & Co., of Flushing, New York.

For money paid to Mr. Robinson, for anything mentioned above, we guarantee the same shall be properly applied. His representations may be entirely depended upon, and all orders given through him will be faithfully and promptly executed. Our exchanges at the South and West will confer a favor upon us as well as their readers, by noticing this arrangement; and we bespeak for Mr. Robinson, such attentions upon his travels as will tend to make them agreeable, and further the objects of his tour. It will be his study to make himself useful wherever he goes, and he may be emphatically styled the Agricultural Missionary of the land.

LOOK TO THE LEAKS IN YOUR BUILDINGS.—For want of a trifling attention to the covering of buildings, considerable loss is not unfrequently sustained. A single board gets loose, or a shingle is out of place, and forthwith the water is admitted, and runs into a mortice, and soon the tenon is rotted off and the mortice spoiled. Thus, two sticks of timber, in all other respects good, are rendered comparatively worthless by the want of a little caution, or from the neglect of replacing one shingle. Air holes which admit a stream of cold air directly on to an animal, are very injurious to them. Nothing will tend more certainly to disease than this. There is an old Spanish proverb which is true to the letter:

"If cold wind reach you through a hole,
Go make your will and mind your soul."

The physical effect is the same whether applied to man or beast. The dripping of water through a leaky roof is equally prejudicial to an animal. Much is lost and nothing gained by these petty neglects.

ITALIAN GRAPE VINES.—*Imported by C. Edwards Lester, U. S. Consul at Genoa.*—Early the past summer, Mr. Lester arrived in this country on a visit, bringing with him a quantity of very valuable Italian grape vines, which were offered for sale. Many of them were sold at auction, but for a price so low that he stopped the sale, finding he would not get his money back expended in the importation, and the balance he caused to be set out in different parts of the country. A large proportion of these lived, particularly those under the care of Mr. Lester's Italian vine-dresser, and there are now about one thousand, in a fine vigorous state, which will be taken up and sent to us as fast as they are ordered. They are for sale at $1,50 per single vine, or $15 per dozen. The proper way to keep these vines till spring, will be to put them in a warm cellar, and then cover the roots with earth. If set out in the following spring, they will most probably bring fruit the first year. A large number of gentlemen in this country who have eaten this grape in Italy, seem to esteem it superior to any we now have in the United States cultivated in the open air.

THE OSAGE ORANGE, FOR HEDGES.—This splendid shrub seems but little known for hedges, yet many persons have long believed it admirably adapted for this purpose, and enclosed their premises with it. Near Philadelphia there are hedges of it impenetrable to man or beast. It is armed with formidable spines, and effectually excludes fruit pilferers and gunners. Cattle will not browse on its leaves, or tender shoots; and it is entirely free from the diseases which have made such havoc with the thorn.

CASTS OF A PRIZE SHORT-HORN HEIFER.

It will be recollected that in our March No., page 81, we proposed receiving subscriptions for plaster casts, of the prize short-horn heifer, belonging to Sir Charles Tempest, which at the late annual exhibition of fat cattle, of the Smithfield Club, in London, took the first prize of the gold medal, as the best animal on the ground. These were cast from an exact model of the heifer, which Francis Rotch, Esq., of Otsego, New York, then in London, caused to be executed by one of the first artists of England. They have now arrived, and can be seen at our agricultural warehouse, No. 187 Water street. These casts are 16½ inches long, 9½ inches high, and are beautiful statues of an almost perfect animal. The anatomy of the heifer is exceedingly well developed; and in gazing upon the beautiful model, it seems almost life-like, and as if on handling its unctuous flesh, that it would recede and spring back to the touch, as did the original when standing in its exquisite proportions, a superb show, before the admiring multitudes of Smithfield.

Mr. Rotch deserves the gratitude of the breeders of America for giving them this model by which to fashion their animals, and we predict that it will ultimately exert greater influence in so doing, than all the cuts and pictures of cattle yet offered to the public in this country. A picture can only give a *general* idea of an animal; whereas, a statue adds to this, a *perfect view of its separate parts.* It can be examined on all sides; its proportions measured, and these considered as a whole, and in relation to each other, things which are absolutely necessary to be taken into consideration, in forming a true estimate of an animal. Let those now who are desirous of having what constitutes a good animal, place this statue before them; then take the September No. of the Agriculturist in hand, and turn to page 268, and carefully read over the "Scale of Points for Durham Cows," which they will find there, and they will obtain more just notions in a single hour, than they can otherwise get by reading a whole month. We hope that those persons who hereafter consent to act as judges at cattle shows, will take this subject into consideration, and at least *endeavor* to qualify themselves for the task. If they will do this, they will find a small part of their conceit and prejudice vanish, and their decisions will be more just than those which are too often handed in for the sanction of agricultural societies, to the great mortification and discouragement of all good breeders. Many an indifferent beast have we seen thus held up to the public as the best, and a model to breed from, when the really deserving, from the ignorance of the judges, were passed over as unworthy of notice.

We stated that the cost of the casts would be $3 each, delivered here. We find upon paying freight from London, Custom House duties, and other charges, that they cost within a fraction of $4 each, without allowing a single cent for our time and trouble in the matter. If they are repacked here and shipped, it will cost another dollar each, making $5. We could not undertake to procure others short of this sum. We are willing to be at the trouble of ordering these casts for the sake of improving the cattle of the country, and all we ask in the matter is, to be indemnified for the actual expense of so doing. We could not take the risk of breakage even at this price; but would ensure the casts delivered here at $6 each, provided more can be obtained, of which we are not certain till we write Mr. Rotch, who is still in England. None have yet been sent out here except such as were subscribed for last spring. Those subscribing can have their models by calling for them at our office, or directing us where they may be sent.

HOW TO SUSTAIN AND IMPROVE THE QUALITY OF THE SOIL.

It has become an important inquiry among many of our farmers, how they shall fertilise such of their lands as are yielding large burthens of produce, which are taken off the premises for sale? Where remote from a large city, or places for supplying manures, this is a most important query, and one which they are highly interested in having answered correctly. It is absolutely certain, that farmers cannot annually rob their farms of large crops of grain, grass, and roots, without either supplying manure to the soil, or losing rapidly in its fertility. We shall briefly indicate some of the most obvious resources for sustaining and improving the productiveness of the soil.

In the first place, not an ounce of animal manure should be suffered to be wasted, either liquid or solid. When not dropped on the feeding grounds, but around the stables and yards, it should be carefully saved and treasured up, where it cannot waste till used. This should be carefully and judiciously compounded with turf, or peat, or vegetable matter, so as to retain all its gases, and not be permitted to drain away, and as soon as a proper time offers, it should be carried on to the fields and at once incorporated with the soil. Another resource for many of our Eastern farmers, is the immense stores of peat and muck that are within their reach, and which tends greatly to benefiting a light, sandy or loamy soil. All the animal matters, bones, leached or unleached, should be carefully collected and applied to their land, and any other fertilising substance which is to be found around the premises or can be collected at not too great an expense in the neighborhood.

But in many cases where the stock of cattle is not large, and the produce sold from the land is considerable, some more definite and certain means for sustaining a farm must be resorted to. With the most intelligent and systematic agriculturists, a proper rotation is adopted, which has been found by experience, to be adapted to the locality and products. By this is meant, a regular succession of crops on the same fields through a series of years, which, at their expiration, are again repeated. They are so arranged that two grain crops never follow each other, but are separated by root crops, grass, &c. This system prevents the necessity of the soil yielding similar ingredients through two or more successive seasons, which it will seldom do to an extent sufficient to produce a good second crop. Time is required for it to decompose such of the ingredients which it contains, as are necessary to form what are called the inorganic portions of the plant, in such conditions to be taken up and appropriated by the plant. It also enables the cultivator to apply his green or putrescent manures to such crops as are most properly adapted to receive them. Such are corn and roots, and nearly all the objects of cultivation excepting the smaller grains.

The great object of rotation, however, is to give the land rest as it is termed, when allowed to remain

in grass or meadow; or refreshment when clover or other fertilizing crops are plowed into the soil for manure. Such crops carry back to the soil so much of its materials as they have taken from it, and in addition, important elements which they have abstracted from the atmosphere; and they are found, by long practice, to be of great benefit in sustaining the fertility of the soil. Before passing on to a consideration connected with this particular point in the subject, of the highest importance, we would say, that a large share of the benefit to the land, derivable from this practice, may be secured, by feeding the clover to such animals as will consume it on the ground. We say a part only, for all the food which goes to supply the respiration of the animal, which is no inconsiderable share, passes off again into the air, and is lost. Another part is stored up in the augmented size of the animal, for it is certain that whatever weight it acquires while feeding, is at the expense of the soil. If milch cows are pastured, the abstraction of valuable ingredients is still greater, as it has been found that pastures fed off for a long time by cows, have been robbed of large amounts of phosphate of lime, and other important matters. If horses are thus fed and taken on to the roads or elsewhere to work, it is evident that large quantities of this manure will thus be lost to the fields supplying the food.

Sheep are undoubtedly the best adapted to the object we have in view. They remain stationary in the same fields where they feed, and return to them all they have taken, save what escapes by respiration, evaporation, or is stored up by the wool or carcass. They also drop their manure on the highest and driest parts of the ground, where it is more beneficial than elsewhere; and we would most earnestly recommend the introduction of sheep husbandry on a more or less extended scale, to any farmer who practises the system of turning in crops for manure. The necessity of carrying them through the winter, will still further provide the materials for fertilization, by accumulating a store of manure from this source, which without the sheep or a full equivalent in other stock, would not be thus secured.

But to recur to the subject of turning in green crops. It is evident at a single glance, that this system does not accomplish all that is necessary in sustaining the full measure of fertility of land subject to close cropping. In a rotation consisting of clover and wheat simply, we find that the wheat abstracts large amounts of phosphate of lime, potash, gypsum, salt, &c., &c., which, if nothing be added to the soil, except the clover crop, will in a few years reduce any ordinary soil to so low a point, that it cannot yield profitable returns. The land may continue to yield for a long time; but it is evident that it is losing properties at every successive harvest, which must be supplied to it, or it will eventually be exhausted.

The true and only remedy for this, is, to ascertain by analysis, either of your own, or the well established researches of others, precisely what of the inorganic materials, such as are inherent in the soil, and not found to any appreciable extent in the atmosphere, are taken from the land by cropping or feeding, and not returned to it by straw, manure, or offal of any kind, and return those materials to the land in such available shape, as will enable future crops to supply themselves with all that they require. This is indispensable to a succession of good crops and prolonged fertility, and no farmer is wise who neglects this practice for a single year, however seemingly well his adopted system may answer, which does not embrace the foregoing practice.

AGRICULTURAL PERIODICALS.

As the season is fast approaching when most of the periodicals end their volumes, and others are about preparing to be started, we have thought it advisable to say a few words on this subject. We have now had nearly four years experience in the conduct of a journal, and can therefore speak understandingly in the matter. Heaven knows that our heart is perfectly free from any jealousy in regard to our cotemporaries. We care not how many journals are in existence, provided there were the slightest chance of a *fair support* for them; but of those of a purely agricultural nature, all engaged in them will at least *privately* acknowledge, that it is exceedingly difficult to keep them up. Let those then who may think of embarking in this thankless and most miserably paid species of literature, sit down and coolly count the cost thereof, and their prospects of success. We can reckon up nearly twenty agricultural journals that have started within the four past years, every one of which has stopped for want of support, and several others are merely floundering along in a sort of spasmodic existence, and must soon share their fate.

To successfully establish and conduct an agricultural paper, requires a good many more things than those unacquainted with the business can well imagine. First, it must have considerable capital to start upon. Second, a great central location, and extensive facilities to get it into circulation. Third, no little share of talent, education, and incessant observation, reading, and practice on the parts of the editor and his correspondents; and these last must be pretty numerous, otherwise the work will flag for want of variety and interest. Fourth, the public taste now demands a good deal of embellishment in the way of engravings, which are quite expensive, and only to be procured in the cities where artists reside. Lastly, strong collateral interests are absolutely necessary to support and keep the paper afloat in the community.

If it were not for our extensive business and other things connected with this journal, we would not continue it another month—we could not afford to do so. It takes 5,000 subscribers to pay the printer's bills alone, and the publishers and editors must look for a considerable subscription beyond this for remuneration for their services in conducting it. "Five thousand subscribers," we hear the reader say, "impossible! why that is $5,000." No sir; it is usually *less* than $3,000, when we come to deduct the commissions allowed to agents, bad money received, and frequently no money at all, postages, and fifty et ceteras that the bookkeeper alone can give any account of. Notwithstanding the foolish boasts of some contemporaries, of "immense circulation" of their papers, which have no other effect than to inflate injudicious heads, and start other periodicals into existence as competitors, which otherwise would never have been attempted—believe us when we say, that there is not a single purely agricultural paper now published in the United States, that is *more than paying expenses;* and several of them not that by some

hundreds of dollars per annum—their editors and publishers foolishly living on hope, which they will find to their sorrow will greatly disappoint them in the end. These are deplorable facts, and it is exceedingly mortifying to us to state them; nevertheless, we have at last felt bound in duty to do so with all frankness, in order to stop the delusion which exists on this subject, and save our brethren and those ambitious of becoming so, from needless expense, and no little labor, care, and vexation.

From the best data which we can get at, we find that not one farmer out of a hundred—take the United States over—is a subscriber to an agricultural paper: the ninety and nine being bitterly prejudiced against, or totally indifferent towards them—as, indeed, we will candidly acknowledge they well may be, in some instances, when we consider the rank humbugs and ill-judged matter with which their columns are too often overloaded. If it were not for the gardeners, mechanics, merchants, and professional men, who mainly support it, our paper *could not live a single year!* We have more subscribers in this city alone, than we have west of Buffalo and the Alleghany mountains!

Shall the great body of the agricultural class be then given up to their ignorance, prejudices, and indifference? By no means. On the contrary, change your tactics, and endeavour to reach them in a different way. There are probably at least 3,000 political, literary, and religious papers published in the United States; get a column or two of every one of these to be devoted to agriculture, and fill it up as a few already do, with short, racy articles, such as are best calculated to promote the interests of the farming community of that particular section of the country where such paper circulates. Incalculable good may be effected in this way, and agriculture be greatly advanced, instead of being retarded by the change. Another thing, take measures to properly educate the rising generation. Every school should be supplied with a good agricultural periodical, and the master be instructed to have its contents daily read and explained to the higher classes. The best education for the farmer's boy is, to teach him what he is to do when he becomes a man, and what is better calculated to effect this than a good agricultural periodical?

CARE OF TOOLS.

It is too frequent a habit of hundreds of industrious farmers, to allow their wagons, sleds, plows, scythes, &c., &c., to remain out of doors through a considerable part of the year. A little more care would be equivalent to a great deal of industry. All wood on exposure to wet and heat is injured; some kinds with great rapidity, others with less. But this result is much more rapid when the alternations are from wet to dry, and heat to cold, as there is a constant expansion and contraction of the pores of the wood, which tends to weaken it and produce decay. This result is still more rapidly produced where mortices and tenons exist, as in wagons, sleds, plows, &c., where the water gets into the joints. Many such articles will wear out more in a single year with such exposure, than in four of ordinary use. This kind of negligence is inexcusable, because easily avoided. A trifling expenditure for covering will be sufficient to house any vehicle or tool on the farm, which will save to the owner the entire cost of the covering every year, in the preservation of the tools.

To prepare them for use, the irons not exposed to wear should be covered with a good coating of tar applied while warm, or thoroughly painted. The wood work should be always painted, or saturated with oil. Paint made of white lead is preferable, as besides the absorption of the oil by the wood, which is a strong preservation to it, the lead and residuum of the oil remaining after evaporation, forms a firm, dense, impenetrable coating, which is impervious to rain and moisture.

Benefit of Irrigation.—A friend of ours in Massachusetts, informed us last month, that by turning a little rivulet which meanders though his farm on to his meadows, he has cut over two tons of hay per acre the past year, where, on account of the drouth, had he not irrigated, he would have scarcely cut one ton per acre. He will have over 100 tons to sell this year, for which he can obtain $22 per ton. How often we have entreated the farmers of this country to irrigate their lands, we appeal to our back volumes; it is more easily done than they are aware of; and if a general system of irrigation could be adopted in the United States, it would be millions of dollars to their advantage.

A CRAZY FARMER.

Among other places which we visited during a ramble last summer in Massachusetts, was the magnificent Asylum for the Insane, at Worcester. It is still under the superintendence of Dr. Woodward, one of the most enlightened and benevolent men of the age; and to whom the country is greatly indebted for an amelioration of the condition of the insane, and introducing a kind system of treating these unfortunates, in place of the harsh and cruel usage to which they were formerly the suffering, and, in many instances, the loathsome objects. One of the best means he finds for this purpose, is, to employ the males on the farm attached to the hospital. As an evidence of the safety of this method, he has repeatedly trusted *four homicides* to work together in the same field, with axes or scythes in their hands, and the slightest accident, or ill temper, or disposition to do harm, has never been manifested by them. The farm is of considerable extent, and is almost entirely cultivated by the inmates of the Asylum.

Among his patients, Dr. W. had one who became exceedingly ambitious of farming upon his own hook. At length, the Doctor good-humoredly yielded to his importunities, and gave him possession of a field in rear of the hospital, on which to expend his *eccentricities*. The field was in grass, and the surface of it slightly descending from the rear of the buildings. Near the sides of these he constructed little ponds into which he drained the water from the roofs, and the urine from the water closets, let it stand and well amalgamate a few days, and then he conducted this liquid, quite evenly, by means of narrow, shallow ditches, over all his field. The result was, that this field yielded six cuttings of grass, of about one ton each per acre—making six tons per acre—during the first season! So much for a crazy man's farming. All we can add, is, that we wish there were plenty more such in the country.

A Good Cow.—Doctor Woodward informed us that he thought the grade Durham cows of the country, as a general rule, were the best milkers. He has one which gave 1,050 gallons last year. She was milked ten months, then went dry two months and produced a calf, and was in high milking condition when we saw her. He had several others nearly as good on the hospital farm. They are turned out to pasture by day, and yarded and soiled night and morning. The herd was under the care of another crazy man—a homicide—who, to use his own expressions, owned them all, and the land and buildings around him to a great extent. Indeed he was another Crœsus, in his own happy estimation, and a prince to boot, with a magnificent principality for his domain. His factotum in assisting to drive the cows, and catch all the rats on the premises, was a rough, honest looking terrier, and time would fail to tell of the comic doings and sayings of these twain. We also saw here a superb pair of twin steers of the Durham cross. They were almost exactly alike in appearance, and were inferior to no others in Worcester county as workers. The breed of swine here is most excellent. They are a cross of the Berkshire on the large English white hog, and generally preserve the color of the latter, with the fine shape, hardiness, and quick feeding properties of the former.

THE STABLE.—No. 5.

Ventilation.—Of all the arrangements of the stable, with a view to the comfort and health of the horse, none are so important as those which have in view a proper ventilation. On the purity of the air of the stable depends the health of the horse and his power to do his work; and the object of ventilation is to secure a full supply of pure air to answer the demand arising from consumption.

Our space does not permit the full discussion of this subject; a whole number would not be sufficient. Deeming it conceded that stables should be well ventilated, we shall merely state that in a physiological point of view, the use of air in the animal economy, is to purify the blood. The composition of pure air is as follows: in one hundred parts of air, 79 are nitrogen, 21 are oxygen, with an indefinitely small amount of carbonic acid. When the air passes into the lungs it meets there the blood, which has passed into them from the heart. When it comes from the heart it is dark in color, a deep purple. It is made dark by the presence of a large amount of carbon. When in the lungs it meets the air and the oxygen of the air combines with the carbon of the blood, and carbonic acid takes the place of the oxygen in the air, and together with the nitrogen is expelled from the lungs. By this process heat is evolved and the animal supplied with its animal warmth. When the air is confined in the stable and there is no admission from without, and no escape from within, the air is constantly losing its oxygen under the process of breathing, and carbonic acid taking its place. The blood which was dark when it came into the lungs to meet the air, goes back to the heart of a bright vermillion color, to be sent thence as arterial blood, to again take up the effete carbon of the system and bring it to the lungs, to be there consumed in the process of purification and the production of animal heat. The air, then, to perform its proper function in sustaining the animal system, must be pure, that is, must have 79 parts of nitrogen, and 21 parts of oxygen, and be free of all things else. After being breathed it is charged with carbonic acid. This acid is fatal to life if breathed in sufficient quantities for a very short time.

The air of the stable may be, and is almost always impure from another cause than the presence of carbonic acid. The urine and dung of the horse in putrifaction furnish a large amount of ammoniacal gas. This mingles with the air, and takes the place of a certain amount of it. When the mixture is inhaled into the lungs, there is not present a sufficient quantity of oxygen to consume the carbon of the blood, and change it to carbonic acid that it may be expelled. It is then returned to the system again, and at each successive return to the lungs, passes thence more impure than before.

Now purity of atmosphere is to be effected by two means, viz: the perfect cleanliness of the stable; and by the admission of fresh air from without, and the expulsion of the carbonic acid from within. To secure the stables against ammoniacal gases, remove most scrupulously all dung and urine, and strew the stables and drains with chloride of lime, gypsum (plaster of Paris) or charcoal dust. To insure the absence of the carbonic acid, construct outlets at the top of the stable and inlets at the bottom, to admit fresh air. The air, when expelled from the lungs charged with the acid, is *warm* and of course *lighter* than the unbreathed air. It *ascends*, and if permitted, will escape from the building. If it be prevented, it soon *cools* to the temperature of the air of the stable, and *descends*, to be breathed instead of pure air. If carbonic acid will destroy life when inhaled in sufficient quantities, it will, obviously, in small quantities, affect health. The truth of this is shown by the *amount* and *variety* of disease in *close* stables, filled with *large* numbers of horses.

Beside the action of the carbonic acid and ammoniacal gas on the system through the lungs, there is yet another. Where the gas exists largely, and the horse is subjected to it for some length of time, his eyes are affected, and eventually blindness is brought on. With this exception, the other diseases induced by the foul air of stables, all come through the lungs. Their number is frightful. Inflammation of the lungs, of the brain, of the liver, of the heart, of the arteries, of the kidneys, among the rapid diseases, are often the result of impure air in stables, and are owing oftener to this cause than any other. These diseases are seldom found among farm horses, but are very frequent in large stables of staging and livery horses. Glanders, farcy, heaves, most of the chronic diseases of the lungs, the virulence of influenzas and of all epidemic diseases taking a chronic form, grease, enlarged glands, continually swelled legs, &c., are diseases which most commonly arise from the continued action of foul air.

Warmth and impurity are two things; and a stable may be warm and pure, or may be cold and impure. It is more apt to be impure when warm, than otherwise, for the warmth springs ordinarily from the exclusion of the outward air, as stables that are aired well, generally so admit the air as to make the stable cold. The point in ventilation is to so admit the air as to secure both purity and warmth.

Our cut in this number will illustrate one mode of ventilation. The windows above admit the escape of the ascending warm air, charged with carbonic acid. They are attached by hinges, and may be opened and shut wholly or in part, at pleasure. This method has a double advantage; it ventilates and brings the light into the stables from above. If there be a hay-loft over the stables, this method cannot be adopted; in such a case there should be flues to carry off the carbonic acid and noxious gases. For this purpose, tubes may be passed through the hay-loft to the roof, or holes may be made in the walls at the top of the ceiling of the stables. Whatever may be the form of stables, one of these modes may and should be adopted.

To secure the admission of fresh air, windows are necessary. There should be one with a shutter at the head of each horse. These should be used constantly in fine weather. In addition, there should be windows so placed *near* the floor, as to admit a full supply of air at all times, and yet not directly in upon the horses, who should be protected in bad and cold weather, and when *heated* from currents. This can be effected by admitting the air at a distance from the horses, and giving it a direction that will bring it indirectly to them. A screen of boards opposite the inlet will do this. In fine weather, all the means of bringing in fresh air should be used; and most especially the windows in each stall. The current of air right on to the head and neck is less injurious than on to the loins. When, however, the weather is too cold to admit their use, the stables will be sufficiently ventilated by the window, which will admit it for all, provided there be outlets to permit the escape of the carbonic acid and the gases. In cold weather there is less need of ventilation *below*, as the pure air is denser, and at equal volumes contains more oxygen than when warm. The inlet may then be small, and yet the stable be equally sweet, as the breathed air ascends more rapidly.

Such are the general principles of ventilation. They may be adapted to every stable; and will be, by every owner of horses, who regards his interest and is humane.

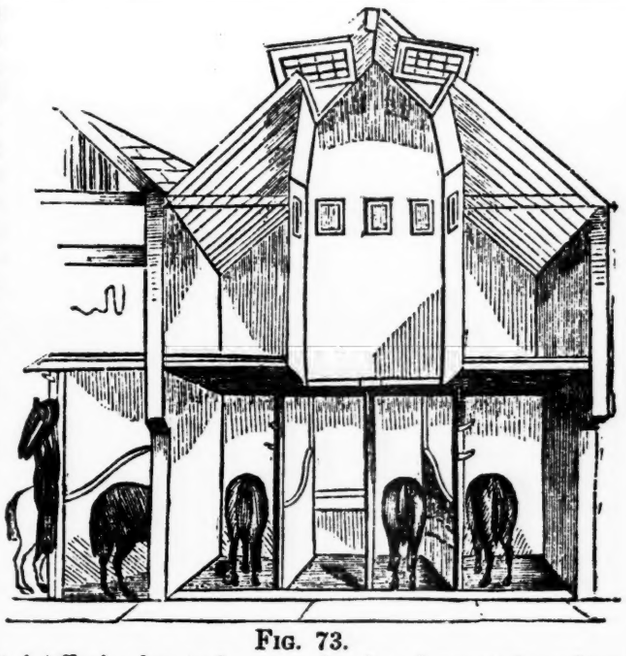


FIG. 73.

SHEEP FOR THE SOUTH.—Thomas Affleck, Esq., of Washington, Miss., has recently been among us to select a flock of sheep for his plantation, being convinced that they can be bred to as great advantage at the South, as here at the North. He took 46 head in all—15 of the Leicester and Cotswold breed, and 31 of the Saxony and Merino. To these he will probably add a fine flock of Saxony and Merinos, to be selected in Washington County, Penn. Some of the animals selected here, had taken prizes at the State Agricultural Society show, and others at that of the American Institute. They are valuable animals, and we trust that Mr. Affleck will meet with that success which his enterprise merits. Sheep can be supported for almost nothing in the pine woods and some other lands of the south; and many are sanguine, and we fully believe, that a pound of fine wool can be as cheaply produced there, as three pounds of cotton. The former will be worth from 30 to 40 cents on the plantation, the latter 15 to 18 cents only. Mr. Affleck also took out a fine lot of assorted poultry, such as Dorking and Poland hens, African geese, ducks, &c.; some dogs; and a high grade Devon bull

SALE OF RAMBOUILLET SHEEP.—We have sold the entire flock of Rambouillet sheep, belonging to Mr. David C. Collins of Hartford, Connecticut, to Mr. L. G. Bingham, of Williston, Vermont. We expect that they will pass through this city on their way to their new home, early this month; we shall then take a look at them, and speak of them as we may think they deserve. We have not seen the flock for about two-and-a-half years. We shall find this one thing at least about them, and that is, they are *pure* Merinos, and precious blood runs in their veins. Mr. Bingham tells us that he shall not sell any ewes from this flock at present, but will spare two or three of the young bucks this fall, if wanted by any one. The price will be from $50 to $100 each. Those desiring the same will hereafter please address Mr. Bingham, or if more convenient they can apply at our office, No. 187 Water st., N. Y.

BENEFIT OF SUBSOIL PLOWING.—A farmer from Connecticut informs us, that he has raised a field of corn the past summer, which he thinks will average 80 bushels to the acre, and that he selected half an acre of the best, from which he gathered 134 bushels of ears, all sound and well filled out. That while his neighbors' corn adjoining was withering with the drouth, his was luxuriant; and he attributes the whole of his success to subsoil plowing. Another fact he stated was, that the whole expense of planting, cultivating, and harvesting after the ground was plowed, did not exceed $3 per acre; that he did not touch it with a hoe, but worked it with a harrow and cultivator; and what few weeds were not reached with these, about the hills, were pulled up by hand before going to seed. We intend to visit his farm next summer, when we shall have something further to report.

Agriculture in Scotland.—No. 13.

Electro-culture.—As I gave you in one of my former letters some information on the subject of electro-culture, I deem it right to furnish you some further results, both of my own observation and the experience of others.—You may remember, that I did not then evince any very strong conviction, as to the reality of the revolution in cultivation which was expected; and if I had ever believed in it, facts brought forward during the past season would have shaken my confidence.

Many trials with wires, upon Dr. Forster's plan, have been made in this vicinity, and, so far as I have heard, with uniform ill-success. Mr. Coventry, a gentleman of this city, who embarked most enthusiastically with the electro-culturists, early in the season, has lately come out with a long letter condemning the whole thing. Mr. Gordon, of Knochespoch, on the other hand, has offered, through the Highland Society, a prize of £30 for the best series of experiments on the subject, to be reported before November, 1846. A farmer perfectly well qualified for such a task, tells me that he intends making extensive researches in consequence of this offer; but it is with the expectation of proving the whole thing a humbug, as he has very little faith in the success of his trials.

During a tour in England, through Lincoln and Norfolk, a few weeks since, we heard something of electricity, and on the farm of Mr. Blyth, one of the best that we visited in Norfolk, we spied some wires set up in a barley field, but were unable to discover any difference in the crop over or around which they passed. We charged Mr. Blyth with dabbling in electro-culture; he seemed rather ashamed of it, but said that his limited experience had driven away any glowing anticipations, in which he might have been inclined to indulge. He thought, however, that a *little* effect *was* produced by an experiment in his garden. On repairing thither, we found a wire put up over a bed of onions, and certainly a few rows in the middle of the bed, near the wire, were better than the others; but in the course of our investigations we happened to look at the next bed, where, behold, we found the *middle rows* also best, fully as good as those that were electrified. Such was the result of our personal observations, and we heard many such stories from others.

I mentioned in my former letter, the experiments of Dr. Forster, of Findrassie House, near Elgin, who is the great advocate of electro-culture, and whose results of last year were so wonderful. With respect to these results the Elgin people *do* tell some queer stories; but as a prophet is never honored in his own country, I will not repeat them. In their place, however, I will give you the experience of a credible witness who has seen his this year's operations.

It was in a letter published in the Caledonian Mercury of the 7th instant, from Mr. Cowie, of Haulkerton, Maine, who visited the northern counties expressly to see the *modus operandi* and *results* of Dr. Forster's experiments. I transfer an extract in his own words, he says:

"I was accompanied on the occasion by two crack practical farmers. We drove our vehicle to the stables of Findrassie, where we intended to put up our horse for a short time. While I was engaged in searching for Dr. Forster, who, however, had left home, my friends got into conversation with a very communicative lad, a servant on the farm, respecting the experiments on electricity. The man seemed rather astonished that we had come to see what was thought nothing of in the neighborhood. On being asked if the crops were better where the poles and wires were placed than on the rest of the field, he answered—'Weel, the crop sud be better, considering the *additional pickle-dung* it got beside the wires, but that he could not say there was really any difference observable.' After this exposé our expectations were very moderate; but we determined to have ocular demonstration on the subject, notwithstanding the absence and want of permission of the lord of the manor, whose public announcements have, however, laid that portion of his grounds under experiment, in some measure open to public exhibition. The poles and wires are placed in two very small fields, one of which is in pasture, and the other a crop of barley. The first had not a living animal upon it, and humane and considerate it certainly was, for the total want of anything in the shape of grass beyond the roots, would have starved any hill ewe—nibble she ever so eagerly. The devoted field, instead of being *electrified*, seemed to be *paralysed*, and will to all appearance require some more 'pickles of additional dung' to revive its sensibilities after the *shock* it has sustained. Then as to the barley, it seems neither to have suffered nor to have been ameliorated by the magic wires, for no perceptible difference can be seen over the field. The crop, what with electricity, 'the additional pickle dung,' and all, looks at less than four quarters per acre. It is perhaps premature, so long before the in-gathering of the crop, to condemn the experiments at Findrassie. As far as I have seen and learned on the subject—for similar experiments have been tried and failed in this quarter—I cannot, however, reserve myself until after harvest in denouncing the thing as a hoax. Dr. Forster may have himself been deceived, and we must give him credit for good intentions in wishing to enlighten his brethren; but he should either now acknowledge the failure of his experiments, or submit them to the inspection of some of those shrewd Morayshire farmers by whom he is surrounded."

No comment is necessary on the above, it is conclusive as to those experiments at least. I think you will see that I was somewhat justified in the jocular tone of my first letter; I am sure that most of the agriculturists and scientific men of this country would now join me. The general impression and belief undoubtedly is, that electro-culture is *all fudge*. I have endeavored to give you both sides impartially, and have reported the only favorable trial known, that has been conducted on a large scale. If our farmers can still make something out of it, it will give me great satisfaction. I will close with an extract on the subject from one of the English agricultural papers.

"Royal Polytechnic Institution.—Dr. Bachhoffner has delivered a lecture on electro-culture, or the application of electricity to agricultural purposes. We felt anxious to hear what the Professor would say in the matter, because from his peculiar position we have a right to expect from him a thorough knowledge of the subject. The lecture opened with an

elaborate view of the electricity of the atmosphere, and its various phenomena, including the feu d'Elmo, the Castor and Pollux, &c. The professor next examined critically, the reported experiments of Dr. Forster, and laid before his audience the results of a number of researches on artificial electro-culture. We have not space to follow Dr. Bachhoffner through his able lecture, but we may conclude by telling our agricultural friends that we were convinced, and so we deem was the vast audience, that man cannot, by any of his paltry efforts, give to vegetation more of the electro-vital principle than nature has already taken means to supply." JOHN P. NORTON.

Edinburgh, Sept 2, 1845

—

To the above pleasant letter of our intelligent correspondent, we will add, that more than a dozen of our friends in this vicinity have made experiments in electro-culture in their gardens and fields the past season, without the slightest benefit—so far as our knowledge extends—to any crop whatever. It is possible, however, that electricity may be beneficially applied in a very few instances to certain plants.

CANE-BRAKE LANDS.

As many persons in this State and Louisiana, greatly to their own loss, and that of the States in which they live, are deterred from purchasing or improving cane-brake lands held by them, from the impression that the improvement of them is tedious and expensive, I will state for their information and encouragement, a few facts, and give a few rules and estimates, with which an establishment of twenty-one hands, made this season in T. 14, R. C. West, on Deer Creek, has furnished me.

I reached Deer Creek on the 19th of December last, with twenty-one hands—ten men and eleven women —and a young man of energy for overseer. The three first days of the ensuing week were spent in preparing work, and the three latter given for holidays. On the 28th the hands began regular work, and by the 14th of February cut 225 acres of cane. Between the latter date and the 29th of March, on which day the cane was splendidly burnt, they prepared and planted, in cotton, 150 acres of land belonging to the heirs of the late Dr. Tenquite. That time would have been sufficient for fencing the 225 acres, had their exposure to stock rendered it necessary. These hands have planted and cultivated the 225 acres in corn, the 150 in cotton, and have an excellent crop. Since the crop was laid by, they have cut 100 acres more, to be burnt in October. These latter 100 acres will, in my opinion, be in better condition the ensuing season for cotton or corn, than the 225 cut last winter, burnt in the spring, and cultivated one year. As soon as the cotton is picked out, of which they have as much as they can pick, these same hands will cut 100 acres of cane for corn, which, added to the 325 mentioned, will give 425 acres on my own place for the second year. For the cultivation of the 425 on my own place, and the 150 on the Penquite, making together 575 acres, an additional force of some ten hands will be required, which I shall send from the hills.

From this it would appear that a force of any size, reaching the cane-brake by the 15th of December, can erect the necessary cabins, and open in the cane as much land as would be wanted for cotton and corn the first year. With respect to the production of new cane lands the first year, in cotton, much difference of opinion exists. This I attribute to the varying circumstances of season, size of cane, time of cutting, kind of burn, elevation (dryness) of the ground, quantity of timber, and method of cultivation. My own experience, derived from opening three plantations in the cane, is decidedly in favor of a production seldom falling below 1,000 lbs. of cotton to the acre. As a greater number of acres, then, can be cultivated of new cane than worn lands, the production ought to exceed (to the hand) that of the hills, a result I should confidently expect. As the plow would not be required till the third year, a heavy expense for the two first would be avoided—a very great matter, and one not to be forgotten.

My statements and estimates may seem extravagant, but when I shall have explained the course or system pursued, perhaps they will no longer appear so. Knowing that the little progress usually made in the cutting of cane, so much complained of and dreaded, was mainly ascribable to the defective method of measuring the tasks, or of not measuring, I prepared the work by squaring on three sides, with roads 30 feet wide, straight as possible, the front on, and parallel to, the creek, a body of cane of convenient size, for measurement. The front was accidentally made 960 yards. This I afterwards found was fortunate, for I prefer oblong to square tasks. I directed the overseer to pair his hands, and taking them of mornings to the corner of the body of cane blocked out, run the front of 960 yards, dividing it into ten tasks of 96 yards front each, ordering the pairs successively to cut the side lines by his return. After running down the whole front, he returned and measured the side lines. A cane or pole 8 yards or 24 feet in length, thrown ahead, was found the most expeditious method of measuring. In this way, tasks amounting to ten acres were laid off in a few minutes without any trouble to the overseer, or loss of time to the hands. On finishing the tasks, the hands straightened the back lines by the eye, and thus presented a new front daily. For the first week or ten days, which time was required for acquiring skill, familiarity with the rules of cutting, and becoming hardened to the new work, a quarter of an acre to one, or half acre task to two, was given, after which half an acre by each, or an acre task by the pair, was cut with great ease by 4 to 5 o'clock.

Without having prepared the work as stated, the method or rules for cutting the cane adopted, could not have been practised. They were these: on returning to the front from cutting the side lines, the swifter of the two hands took a strip, of say, four feet, and turning his right arm to the body of the cane, *which was kept invariably in that position*, caught with his left hand, the palm out, the cane (or two, if very close), next the road or opening, and bending it a little, shivered the joint at or just above the ground. The slower hand followed, throwing with his own any cane cut and left standing by his leader, entangled at the top with his. By observing the rule of keeping the right arm to the body of the cane, they were compelled to move the body *laterally*, thus saving the time that would have been lost in changing the position frequently, from a face to a half face to the right, and back again. These things are made more clear by a diagram.

Applying my estimates you will find that 10 acres per day, cut by twenty hands, make 60 per week, 240 per month, and 360 for a month and a half. Making ample allowance for time lost by weather, sickness, or accidents, these 360 acres of cane should be cut between the 15th of December and the 15th of February, and the necessary cabins erected. It would appear from this showing, that it is not only an easy matter to open in the cane as much land as would be sufficient for cotton and corn the first year, but that it is necessary to limit the amount cut, for I would much rather have the cane on my land than off, if it be not cultivated. So favorably do I think of the cane lands (those, of course, on which the cane is large enough to kill the timber in burning), that were two tracts of like quality lying contiguous, the one having the cane on, the other off, I would not hesitate to give ten dollars an acre for the former, rather than accept of the latter as a gift, on the condition of improving it. If I am right in my position, a richer mine of wealth than the cane-brake lands of this State and Louisiana belongs not to any people. But to be enjoyed it must be dug immediately; for a few plantations, dispersed through the various cane-brakes, will, by means of their stocks, in a very short time, destroy the cane, to the irreparable injury of non-residents and the tardy in purchasing.

The young man in charge of my Deer Creek place is extremely energetic and attentive, and performed the work without severity, with great ease to himself and his hands. Mr. Dyer had never before been in charge of a cane-brake establishment, and but one of the hands had ever cut cane. I remained on the place upwards of three weeks, and until satisfied that Mr. Dyer would carry out my plans properly. The estimates herein made, I should add, can be realized easily; but only by great energy and close application to business. S. S. W. Vick.

Vicksburg, Miss.

AGRICULTURAL AFFAIRS IN MICHIGAN AND OHIO.—No. 1.

Since writing you the brief notices of farming matters in Illinois and Wisconsin, which recently appeared in the Agriculturist, I have again gone over nearly the same ground, with the addition of crossing the peninsula of Michigan, and passing twice through Ohio on different routes. The two latter states are fully sustaining their onward course of improvement and population, though in a ratio much diminished from the former. Ohio has, for some years, been tolerably well settled, for an American state, except in her north-western domains, and consequently, the rapid increase of population, which characterizes newer territories, is not to be expected; while Michigan has had some old-fashioned prejudices to encounter, in the shape of sectional unhealthfulness of climate, and semi-repudiation and non-fulfilment of state contracts. These causes have wrought hardly against her, but she has struggled manfully against them, and the thriving villages, the better tilled farms, and the constant inroads of the axe-men into her forests, show conclusively, that she has a population and soil capable of yet making her a great and important state.

A considerable portion of the eastern part of Michigan consists of a clay soil, and is well adapted to grass and grazing. This quality of land extends from a point some 30 miles south of Detroit, to near Lake Huron on the St. Clair river, and for some distance in the interior. As we advance westward, the soil, with more or less exceptions, gradually changes to a gravelly or sandy loam, and, in some instances, acquires these characteristics to so decided an extent, as seriously to interfere with its permanent fertility. This is universally true of large quantities of the oak openings, which so generally pervade the interior and western part of the state. These lands will bear a few, good, first crops; but manures must follow close upon their heels, or exhaustion and sterility are as certain as blighted leaves after autumnal frosts. There are some moderately good corn lands among this class of soils, and most of it is excellent for wheat; but all the agricultural vigilance of a long cultivated country must be generally adopted, or diminished crops will soon drive the occupants into the uncultivated regions still farther west. There are many sections of the state which are exceptions to these remarks, and none more so than a considerable part of the beautiful valley of the Kalamazoo, whose rich and gracefully undulating fields, clad with their native *burr oak*, give unfailing promise of abundant wheat fields for years to come.

There are other and extensive portions of the state possessing considerable fertility, which yet remain to be occupied, and which, in the inevitable progress of things, will ere long be settled, and swell the tide of her population and wealth, to a respectable approximation towards her elder sisters.

Sheep husbandry is making considerable progress in the state, and promises soon to furnish no inconsiderable proportion of the aggregate of her occupation. Depredations from wolves seem already to offer no serious impediments to this department of the farmer. In many of those sections through which my earlier routes extended, some dozen years ago, when their nightly serenade was the only lullaby of the wearied traveller, they are now known only by tradition. They have followed closely upon the footsteps of their friends, the Indians,* and are now seldom to be found, except amid the fastnesses of impenetrable swamps, or boundless forests.

Wheat is the great product of the state, and on this the farmers principally rely for their available exports. Never did their efforts receive a greater reward than the present season. The estimate of several judicious citizens is, that the crop fully averaged 20 bushels per acre over the state. I was informed of a wheat field containing 100 acres, which averaged over 45 bushels per acre, and one measured acre of which, produced over 60 bushels. A cargo of this year's crop from Michigan, averaged one barrel of the best, superfine flour, for every 244½ lbs. of wheat. The expense of transportation from the interior is excessive. About 10 cts. per bushel from Ypsilanti, a distance of only 30 miles; and 20 cts. from Marshall, 108 miles, by railroad, from Detroit, reduces the avails of the wheat-grower's product, to far below what it should yield him. It is a matter of no little surprise, that when this road is in the hands of their own citizens, and entirely under their own control,

* It is said, an Indian superstitiously avoids killing wolves, notwithstanding their depredation on their game, from apprehensions of ill-luck in their hunting excursions—a remark which is only partially correct.

such onerous rates should be tolerated. They may probably find a mitigation of this excessive tax, in the hands of a private company, which will probably soon succeed their own chosen task-masters in the ownership of the road, and whose sagacity will dictate an abatement of the present rates of freight, as vitally connected with the advancement of their own interests. Certain it is, that the generally prevalent, and decided hostility to corporate associations, which is one of the political Shibboleths of the present day, would not tolerate exactions from any body of private citizens, which they suffer with impunity from their own legislature.

From Toledo, which is destined to be the commercial capital of northwestern Ohio, my route was by the Wabash canal, about 60 miles, to the junction, thence by the Miami extension to the south. The first is 60 feet wide, and 6 feet deep; the latter 40 by about 4 feet. There is a grandeur about these forest highways, which no cultivated regions can match. From the junction, where a small hole has recently been scooped out of the forest, which is now occupied by some half dozen log-houses, three mighty prongs stretch their giant way through a vast and almost interminable wilderness; north-easterly, by the Maumee to Lake Erie; westwardly, to Fort Wayne and the Wabash; and southerly, by the Auglaize and Miami, to the Ohio; and as the eye courses over an unbroken level, through these lengthened vistas, as far as the unaided vision can reach: hemmed in on either side, by apparently dense walls of lofty trees, 150 feet in height, reared amid their solitary and uncultivated grandeur, as if directed by the exactest rules of mathematics; we feel how puny are the works of man, even the aggregate of the temples and pyramids of Egypt, in comparison with the works of the Creator. For an entire day, our route lay through this magnificent waste, unbroken in its unique splendor, except by an occasional log hut by the wayside, the nucleus of some future village or city. To a mind somewhat divested of the utilitarian, matter-of-fact notions of the present day, this stupendous, yet direct and facile pathway, through matted forests, which hitherto had barely yielded a footpath for the wild huntsman, might easily be deemed a prolonged miracle, like the dividing of the Red sea for a passage to the Israelites, when "the waters were a wall unto them, on their right hand and on their left."

Already these routes, although so recently opened, have become busy and important channels of communication for the remote and extensive commerce of large and distant states, and the craft for its conveyance can hardly be supplied with sufficient rapidity to meet its demands. To Buffalo and Lake Erie the Miami extension has unlocked the rich treasure house of the Ohio and Mississippi. It penetrates through the garden of Ohio, to Cincinnati, which is confessedly the emporium of the west; and through her, it will reach the commerce and business of nearly every state in the Union to the south and west. This new region, rude and uncultivated as it yet is, possesses much of a semi-classic interest. It was the great theatre of strife which immediately succeeded to the Revolution, when the red man, aided by the more doubtful hostility of British policy, which still kept possession of the frontier posts within the American territory, struggled against his encroaching foe, with the energy of despair, and vainly sought to arrest his onward progress to the dominion of the west. This was the scene of Harmar's retreat, St. Clair's defeat, and Wayne's triumphs; which, at every point, are brought to mind, by the old military names, which yet indicate the stern contests of bye-gone days; and long may the names of Fort Recovery, Fort Defiance, and Fort Wayne, continue to remind the prosperous husbandman of the valor of those, to whose sufferings and exertions he is indebted for his security and success in his present peaceful occupations.

The soil bordering the canal, for the first hundred miles from Lake Erie, is principally clay, and is evidently destined to be a grazing country. The islands, and some parts of the valley of the Maumee, yield large crops of corn, but it is not till we strike the valley of the Miami, that the corn region properly commences. From below Piqua and Troy, almost to the Ohio, seems one continuous, interminable field of corn, corn, corn; and if the spirits of the ancient race delight in witnessing the luxuriance of their cherished maize, their enjoyment must almost counterbalance the misery of seeing their posterity driven from their former domains.

The agricultural capabilities of southwestern Ohio may be equalled by some favored parts of the same, and a few other states, but can nowhere be surpassed. In the commingling of the geological elements in their fluid state, and in their subsidence and constitution as soil, that just and happy combination seems to have been effected, which leaves scarcely anything to be supplied. And it is possessed in such profusion too, as to be apparently inexhaustible. Forty-seven successive and abundant crops of corn have been taken from a field, and this not renovated by a single load of manure, or the alluvium from any stream. Nice observers would, however, I doubt not, detect some incipient decline in their productiveness, and if this severe course of cropping be persisted in, it needs no prophet to predict, that, at no remote period, their fields will share the fate of the once fertile tobacco plantations of Virginia, many of which have long since been turned out, to resuscitate by the slow, but certain operation of nature.

The corn raised here, is universally the gourd seed, which, from long experience, has been found to be the best producer wherever warmth of climate and depth of soil are sufficient to develope and mature it. The yield, under ordinary cultivation, without manure, varies from 40 to 60 bushels per acre, but with manure and good attention, it will sometimes average 100. It is usually planted about 4 feet apart each way, with three or four stalks left in a hill. Some plant nearer, and leave fewer stalks together. It appears much thinner in the field, than a luxuriant growth of northern corn. That planted on the uplands on a lighter soil, is still more scattered, and from its great height, appears thin and spindling. I doubt if many of these fields, which met my eye, out of the Miami and Sciota valleys, would exceed 25 bushels per acre. This can hardly be profitable farming in a country, where corn sells from 15 to 25 cts. per bushel, unless so far as it contributes to make out a rotation, and the stalks can serve a valuable purpose for fodder.

R. L. ALLEN.

Buffalo, October, 1845.

LIME IN VIRGINIA.

THE use of northern stone lime for agricultural purposes, in this and other tide-water sections of Virginia, has now become extensive, and would, I believe, speedily become much more so could farmers be assured as to the quality of the various limes brought to this market. The greater proportion of the lime used here is obtained from Schuylkill, Coopersville, and the different lime-works on the Hudson river. From several of the latter lime has been used on the estate under my care; and in 1844, about 80,000 bushels were obtained from the lime-kilns of the Messrs. Tomkins, in Rockland co., N. Y. A preference was given to this, these gentlemen having politely forwarded an extract from the report of the Geological Survey of the State of New York, in which the analysis of their lime was stated to contain in 100 parts

of Silica and Alumina	7.25
Carbonate of Lime	92.75
	100 parts.

The above analysis indicated lime of a very superior quality, and imparted confidence in the purchase and use of it. Mr. E. S. Cooper of Baltimore, an extensive lime manufacturer, when in this section of country in the early part of this year, with the view of testing the quality and value of the lime furnished by him, as compared with that received from the Messrs. Tomkins, took with him a sample of their lime to Baltimore for analysis. A letter was subsequently received from Mr. Cooper, addressed to Robt. B. Bolling, Esq., proprietor of this estate, dated Baltimore, June 2d, 1845, from which the following is an extract: "I now enclose and attach analysis of Coopersville, Schuylkill, and North River lime. You will at once perceive that my lime is as cheap at 7½ cents per bushel, as the North River is at 6½. Mine contains 44 parts, and the North River 37½ parts of quick lime, or more than one sixth more."

The following analysis was made of the Messrs. Tomkins lime by Mr. Stuart:

" Quick lime,	37.3
Water,	17.7
Carbonic, Acid, Magnesia and Alumina	21.2
Silica and Oxide of Iron	23.8
	100 parts.

It lost 17 per cent. of weight during a calcination of half an hour, at a red heat. It contains a remarkable proportion of iron. You will please inform me if you wish to know the proportion of magnesia, alumina, and iron and silica. You will notice that I have devoted my attention to the lime. There may be but 5 per cent of magnesia, or it may exist in the proportion of 21 per cent. It contains precisely 37 3-10ths per cent. of pure lime."

In comparing the analysis of this lime, as stated in the Geological Survey of New York, and that made as above by Mr. Stuart, purporting to be the same lime, there is a considerable difference, and, to the farmer, a very important one; and to ascertain which is the correct one would be very desirable. In a private letter to the Messrs. Tomkins, I called their attention to this matter, but having heard nothing from them, I would respectfully solicit, through your paper, the desired information from any of your correspondents familiar with the various qualities of lime in use. It would be of importance not only to the manufacturers of lime themselves, but also to the purchasers, to have a correct analysis of their various limes placed before the public, and I would suggest to farmers generally the propriety of purchasing from none, where a certified analysis was not produced. And, Mr. Editor, on your readers and subscribers in this section of the country you could scarcely confer a greater benefit, than by giving them this very desirable information through the pages of the Agriculturist. I am sure the editor of the Southern Planter will gladly devote a portion of his pages to the same desirable object.

In this section of country, agricultural improvement is much needed, and rapid advances are in many instances being made; and every means that can be made to bear upon, strengthen, and facilitate this good work, ought to have the hearty co-operation of all. There is scarcely a subject of more importance, than that of ascertaining the various qualities of lime, brought to and needed in this beautiful agricultural country, destined at no remote day to be the garden-spot of Virginia, and probably excelled by none in the United States. Should you deem the subject of sufficient importance, please to give to it what aid you can.

In justice to the Messrs. Tomkins, I ought to state that the application of their lime on this estate, so far as effects can yet be judged, promises to be satisfactory—certainly better than some lime received prior to obtaining supplies from their kiln, much of which was very indifferent.

A NICOL.

Sandy Point, Charles County, Va., Sept. 9, 1845.

LARGE FLEECES.

I NOTICE some articles going the rounds under this head, which I am pleased to see; because, limited as the information is, I am gratified to know that our countrymen can produce from any of their sheep *large fleeces.* In your August number I gave you some account of the shearing of my flock by making various classes, comprising my whole flock, and then giving you the average on the whole; stating that the 207 sheep averaged more than five pounds per head. The exact average was five pounds and three quarters of an ounce, reckoning it on the whole. Now I did all this to answer your inquiries in your May No., which were pretty close and searching, just what they ought to be. I could take a very different method, and make up my average thus: With the weight of every fleece noted down at the time, I find I can select forty-two in the flock, and the average shearing is 6 lbs. and 4 oz. Or I can select fifty-seven, and the average is just 6 lbs. per head. If I stop there, it gives no true account of my *whole* flock.

Now what I wish is, that your correspondents would answer each of the several inquiries in your May No., and give us the average on their *whole* flock; and give us an account of the weight of the lightest, as well as the heaviest fleeces shorn. Then we should know how to make up a judgment in regard to the entire flock of the wool-grower. I hope yet to see such communications in your paper. The Agriculturist has done more, I think, to bring to light facts in regard to pure blood Merino flocks in this country, than any other print whatever; and

your inquiries were well calculated to shed light on the history, condition, improvement, and numbers in such flocks—information of vast importance to the wool growers of our country.

Williston, Vt., Sept. 23, 1845. L. G. BINGHAM.

VINTAGE OF OHIO.

I PROMISED you an account of our vintage. It is over, and after all complaints of the rot, and dropping of fruit, and the lamentations of the hard-working German women, who do most of the work in the vineyard in the summer season, my tenants have cause for gratitude, not complaint. The promise of the crop early in the season, was without a parallel. Their expectation was, 500 barrels of wine. They have made upwards of 300. The must was very rich, and the wine promises to be of fine quality. More is said of the quantity of wine raised in this country than is true. The balance of the State, I venture to assert, has not produced an equal quantity. But the cultivation of the vine is fast extending on the Ohio, and one or two years more, and I trust the same remark would not be true of this country.

I am also extending my vineyards. As an excitement to poor Germans, I will give the result in a single vineyard, that of Tuferbers.—It is situated four miles from the city, on Boldface Creek. It is a rich, steep, stony hill. It resembles the hill of the Irishman; "So steep, that before you get up on the one side, you are half way down on the other." It was a hard bargain to the tenant. To trench, bench, and wall the south side hill, was worth $300 per acre. My first tenant on it was a Virginian. I will hereafter go to Virginia for high-minded gentlemen, but for hard workers I will stick to Germans, or go to the land of buckwheat, or the land of steady habits. The Virginian was on it three years. Never trenched a foot. All the cuttings he planted were killed by weeds. He had a son killed accidentally, yet so far from having a shroud, there was not even a shirt in the whole family to put on him. Yet their exterior appearance was decent, and their manners threw my accomplishments into the shade. Perhaps my pride was wounded. From this, or some other cause, I changed them for a young German, and—for a wonder—I met with one too stupid to grow rich. After three years' trial, I parted with him. I then took the present German tenant. He was very poor, but strong and healthy. His wife, a match for the wife of my other German tenant; who, when she died, told me, "he might just as well have lost his horse." He had also full grown boys and girls. I made a hard bargain with him. Bound him to trench and bench six acres of the worst ground in three years, and plant it in grapes, and put out fruit trees. I was to have half of the proceeds of all the wine and fruit. Space was allotted to him to raise cabbage and potatoes for his family, and pasture. I was careful not to make an attempt to climb the hill for the three years, or go near it, fearful of disappointment. Judge my surprise at the end of three years, to find six acres handsomely trenched and benched, with their walls and vines in fruit. Peaches and apples were this season a total failure, and he had his grapes only to rely on. This is the only vineyard at which a few Isabella grapes remain To encourage him, and the other vine-dressers, I let them have my share of the wine at a reduced price. For the Catawba, he was to pay 75 cents per gallon, for the Cape Vevay, or Schuylkill Muscadell, 62½ cents per gallon; for the Isabella 50 cents per gallon. The whole of his enclosure does not exceed thirty-five acres—nine acres of it in grapes. He has sold his wine of this vintage, for cash, for $1,779,41. At the price my share was sold to him, it came to $713,75, and left him from the vintage, the nett sum of $1,065,66. I trust other poor Germans may be excited by his example. The thirty-five acres cost me $630. There were some vineyards in the neighborhood, more productive than any one of mine, as they suffered less from late frost and the rot.

Cincinnati, Oct. 7, 1845. N. LONGWORTH.

PLOWING RIDGES.

I PERCEIVE by your October number, one of your correspondents is desirous of knowing how to form a ridge on a round curvature for meadow land, as described by Judge Buel. Commence in the old furrow. The first furrow must be very shallow and small, the back furrow a little deeper, and so close as to cover the first furrow; the first furrow on each side make narrow and shallow, because these four furrows require to be placed as low as possible. The third and fourth furrows on each side, plow as deep, and wide, and high, as possible, because those four furrows are situated where the ditch, or the difficulty is, which prevents the water coming to the furrow; then plow the remainder of the furrows up in proportion. The last two furrows require to be very narrow; the last but one plow shallow in order to have an earth furrow after the sod is plowed. This earth furrow is very necessary to cover the seed. Ridges may be plowed from three to five yards in width. The principal part of the harrowing should be done parallel with the plowing, in order not to fill the furrows. Then take a double mould-board, or a single mould-board plow, and go once or twice in the furrow, then let a boy take a hoe or shovel, and scatter the earth from the furrow, so that the water may come freely to the furrow. J. B.

FRUITS IN MISSISSIPPI.

THE improvements in agriculture in this vicinity are truly gratifying. Mr. F. Washington settled near me last February year, in the woods, with limited means, and a small force; had his houses to build, land to clear, &c. And this year he had plenty of grapes from cuttings the previous year; figs from cuttings, and peaches from small trees, set out at the same time for his family consumption. He sold $300 worth of water-melons alone, many of them weighing over 50 lbs., and a few as much as 60 lbs. each. He has paid great attention to manuring with muck and lime, coal and ashes from a steam-mill near here, and from hog pens, &c., &c.; indeed, as every good farmer should, he makes manure from, and of, everything, and is reaping a rich reward. He has now 2,500 peach trees, mostly 6 feet high, from the seed, the past spring, all budded with choice varieties. It is, indeed, the prettiest nursery of its age, I ever saw. He now has turnips 3 inches in diameter, and the finest prospect I ever saw—will grow 1,000 bushels.

Our own grape crop again proved fine and abundant. The rice and potato crops both were injured

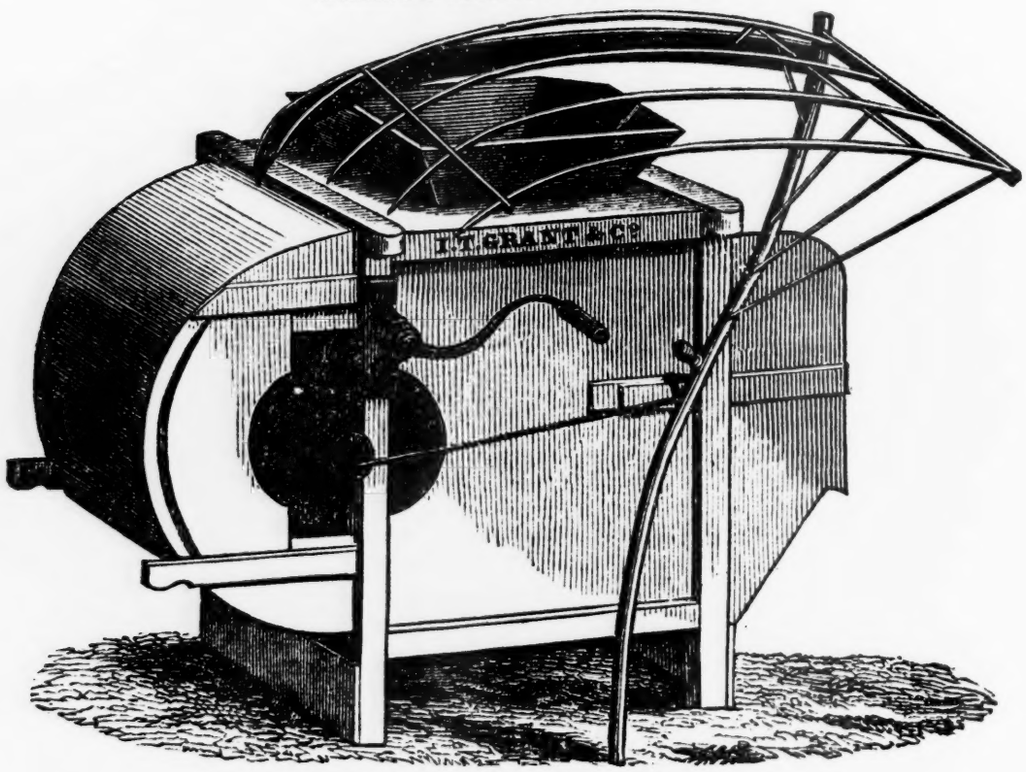
by drought this year. The Cuba species of Bermuda grass which we have tried here, is succeeding finely, and will be valuable for meadows as well as grazing. We have taken a fine sward off a small lot this year.

Another neighbor made an experiment this year, in wine, and the best judges think there is no doubt of his success. He has a good vineyard for the time he has set it out, and contemplates making wine extensively in a few years, having had experience at the business when a youth on the Rhine. We are progressing slowly with *leveeing* the salt marsh, in which we find a considerable quantity of marl, aluminous earth, and decomposed vegetable matter, constituting its principal ingredients.

I trust your work will do all the good to agriculture it is capable of, from its merits, and this can only be effected by its being widely disseminated, which I hope its friends everywhere are using their best exertions to effect. JOHN J. McCAUGHAN.

Mississippi City, Oct. 8, 1845.

GRANT'S PATENT FAN-MILL.



GRANT'S PATENT FAN-MILL.—FIG. 74.

CONSIDERING the simplicity of its construction, and complete efficiency in all its operations, we think the above Fan-mill is the best in use. It has taken the first premiums for three successive years at the State Agricultural Society shows, and we believe at no less than seven country fairs. Mr. Grant has recently made some improvements in it, which consist in adding to the screen and other parts in general use in fan-mills, an additional screen, and what is denominated a chess board, which are arranged in such a manner as to cause a much stronger blast of wind to act upon the grain at the lower part of the shaking sieves or screens than at the upper, and thereby to aid the action of said sieves in effecting the screening, by which means the chaffing and screening are performed simultaneously. All other fan-mills require that wheat should be run through twice, to clean it thoroughly, while the Patent Fan-Mill will chaff and screen wheat more effectually in one operation, than other mills will in two operations, thereby saving half the time and labor required by old mills. The Patent Fan-Mill will also clean all kinds of grain, such as rye, buck-wheat, oats, corn, peas, beans, clover, timothy, and flax-seed, in one single operation. Oats and peas are separated by being run through the mill once.

Directions for cleaning Grain and Seed.—For chaffing and screening wheat, put No. 2 sieve in No. 1 groove, No. 4 in No. 3 groove, No. 9 in No. 4 groove, and the board in No. 5 groove pushed back even with No. 9 sieve. If cleaning for seed, put No. 7 in No. 6 groove; if, for market, put No. 8 in No. 6 groove—give it the middle shake, and open the air slides.

For rye and buck-wheat, put No. 2 in No. 1 groove, No. 4 in No. 3 groove, No. 8 in No. 6 groove, and give it the long shake, if you want to screen rye the same as you do wheat for market.

For oats, put No. 1 sieve in No. 1 groove, No. 2 in No. 3 groove. If to separate oats and peas, or take out thistle heads, put No. 4 in place of No. 2—give it the long shake, and close the air slides part way up.

For corn, peas, and beans, put No. 2 sieve in No. 2 groove, the board in No. 6 groove—open the air slides and give it the short shake.

For flax seed, put No. 4 sieve in No. 2 groove, No. 8 in No. 4 groove, No. 12 in No. 6 groove—shut up the air slides and give it the long shake.

For timothy and clover seed, put No. 4 sieve in No. 1 groove, No. 12 in No. 3 groove, and the board in No. 6 groove—shut the air slides and give it the long shake. If you want your timothy seed

perfectly clean, you must put a No. 20 sieve in place of No. 12.

Be careful that the mill stands level, that the grain works equal on the sieves, and keep it well oiled with winter strained lamp oil. The sieves are numbered according to the number of meshes to the square inch.

The fan-mills are for sale at our agricultural warehouse No. 187 Water street.

ICE-HOUSES

We need not go to China to learn how to make an ice-house. "A cheap plan for an ice-house," has been known in this ice-growing country of ours so long, that the fashion has got to be so old it has been forgotten. Where hay or straw is plenty, it has the merit of cheapness as well as goodness. It is built thus:

Mark a circle upon the ground (if for a single family), say 12 feet diameter, and drive a row of stakes 18 inches apart, 6 feet high: outside of this, set another circle of stakes, 4 feet from the inner one; now fill in very compactly with coarse hay or straw between the rows of stakes; cut out a space for a passage, which must have two doors to fit tight; lay poles across the inner space, and build up a stack to shed off the water; lay some poles or brush in the bottom to keep the ice off the ground, which keep well drained, and your "cheap ice-house" will keep itself and yourself cool.

Try it. I assure you that it will keep in till you are tired of it, and then it will make the old sow and pigs a capital hen roost. Solon Robinson.

New York, October, 1845.

BUTE COTTAGE.

The annexed is a sketch of the beautiful cottage of William Bailey Lang, Esq., at Roxbury, near Boston, Massachusetts. It contains a porch, small entrance hall, parlor, library, dining room, china closet, two store rooms, ten bed rooms (seven of which have upright walls), two dressing rooms, a kitchen, larder, two cellars, and a pump room. It is warmed throughout by a furnace. The style is Elizabethan, and is no less varied than picturesque, and combines much comfort in it. The porch may be made so wide as to admit a carriage to drive under, so that let it be ever so stormy, one can get out and in without being exposed to the weather. The large projecting windows are delightful; and the jutting roof makes the building warmer in winter and cooler in summer, and protects the walls from the rain, thus keeping them much drier than it is possible for narrower-eaved roofs to do. Upon the whole, this cottage is quite to our taste, and we think it particularly appropriate to the changeable climate of the northern states. We are pleased to notice that the Gothic style is finding favor in the country, and that its picturesque forms now frequently greet the traveller in his wanderings among us. Views, with ground plans and descriptions, of this and other "Highland Cottages," are published and are for sale by Saxton & Miles, 205 Broadway, New York, and we commend the work to the notice of all persons interested in rural architecture. The book is remarkably well got up, and the plates are beautiful specimens of lithography.

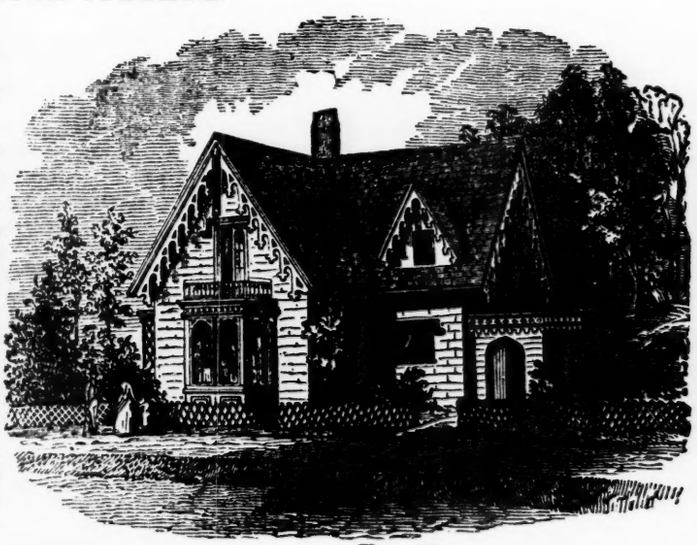


Fig 75.

CULTURE OF INDIGO

It being quite out of the question to make a living in my neighborhood by cotton planting, I am turning my attention to something else. Sugar is the first article to attract attention, as it is extremely profitable, but it requires a fortune to begin with, and is out of my reach. Indigo, I have thought, might answer, but from a small trial I have just made, it does not appear so. My little trial, it is true, is not a fair test, but such as it is, you shall have it.

I planted, early in the spring, a piece of new ground in indigo, on which nothing had ever previously been planted, and after leaving plants enough to give me seed for another year, cut and measured a piece of the following dimensions, viz., 1176 links of the English surveyor's chain, by 150 links, which multiplied into each other, gives 176,400; dividing this by one hundred thousand, the number of square links in an acre, it gives somewhat more than one acre and three quarters. From this I cut weeds to fill four troughs, or vats, which, after being filled with the weed, held 120 gallons of water, which, after steeping about seven hours in the daytime, or eleven hours at night, I drew off into another vat, and beat from forty to fifty minutes, when I found that it would readily settle, and put in the lime water (about one quart), for that purpose, keeping the froth down, of course, with oil. In this last trough or vat I had two spigot holes, one above the other, and of one I allowed the far greater part of the water to run, and then draw out the indigo and the remainder of the water in a rather coarse cotton cloth placed in a box with holes in the bottom of it, the cloth acting as strain, and the holes in the bottom of the box letting the water run from the indigo. This I put in a press for twenty-four hours, in a wooden frame placed on a bench, with grooves, or rather saw-cuts across it, to allow the remainder of the water to run out. I now took out the indigo, still wet, cut it in pieces, and dried it in the sun; out of the sun it appeared to be impossible to dry it. When the indigo was taken out of the press, each making averaged

about seven pounds, or twenty-eight pounds in the whole. I have just now weighed it, when perfectly dry, and the whole weighs only three pounds. Now at this rate, indigo would be rather worse than cotton; but I have not given it a fair trial. It was planted too wide apart, and not cultivated as it ought to have been in consequence of the cold and wet spring drawing my attention to work of more consequence. A neighbor of mine, an old indigo planter, has just one acre of ground in indigo; he has cut his first crop from it, and assures me that he has made fifty pounds from it, and expects twenty-five pounds more from a second cutting. From the samples of indigo I have seen bought by my neighbors, most of whom spin and weave, I am quite certain that it is much adulterated with some other substance; and they assure me that it is sometimes so bad it will not dye at all. Mr. Landry, my neighbor above spoken of, has sold what little he made at $2 25 per pound; or half a dollar per pound more than the usual retail price of the imported indigo. I send you samples of both his and mine, which I will thank you to give to some dyer, to ascertain the value of it in your market, and also a few small lumps of blue, which is three parts starch. Mr. Landry says that I do not beat my indigo long enough, and lose by it in that way, and that I sun it too much and make it too light. He smokes his, but I cannot clearly comprehend what good that does.

It appears to me impossible to take in and secure a crop of more than one and a half acres to the hand, and this planted at three different times, that it may ripen gradually, and not all at once; and, indeed, not so much in a wet summer, of which we have too many, sometimes raining for sixty days, with no more than two or three days' intermission, which nearly destroys cotton crops, and might be even worse on indigo.

The purport of this letter is to elicit a detailed and full account from some practical indigo planter, the whole process of making it, as well as to ascertain the price at your market of such qualities as I send you. All the accounts that I have seen on the subject are meagre indeed. Nothing at all calculated to make an indigo planter. PHILIP WINFREE.

New River, La., Aug., 1845.

—

We have but recently received the samples of indigo spoken of above, and not being acquainted with any practical cultivator of it, we handed them over to Mr. Partridge, an extensive dealer in dye-stuffs in the city, for information. The following is his reply. It must be premised that he puts down the *wholesale* prices the samples might probably bring in this city; whereas Mr. Winfree speaks of *retail* prices in the interior of the country. We shall feel grateful to any of our readers who can furnish us further information on the culture of indigo in this country. We do believe it would pay the southern planter well if he only knew the proper method of cultivating it.

—

MR. ALLEN,

Dear Sir:—I have examined the samples of indigo sent you by P. Winfree, Esq. The fine samples mixed with starch may be worth about 30 cents per pound, for blueing clothes when washed. The squares sent loose in the box, and full of white—or rather drab colored specks—might sell at 50 cents per pound. The sample from Mr. Landry could scarcely be sold at 50 cents; but might bring more, if on trial it should work better than its appearance indicates. The sample of Mr. Winfree is much inferior to all the others, and I much doubt if we could persuade a regular consumer to buy it at any price, as it has evidently been injured in the making.

The best violet and blue Bengal indigo are selling at about $1 40 per pound. We are selling prime consumable quantities of Bengal at from $1 15 to $1 20. Prime Guatimala is selling at from $1 to $1 10 per pound. One pound of the latter being worth at least twice as much as any sample sent in the box, judging from appearances. There is certainly something wrong in the manipulations of all these indigo makers.

Query 1st. Do they not leave the plant to pass its period of maturity before cutting? Mr. Dalrymple informed me that it should be cut when in full flower; another East India maker, that it should be cut before the flowers come out in blossom. They all agree that if left too long, the indigo produced will be less in quantity and of inferior quality.

Query 2d. Do they not cut the plant too soon after rain? For it appears that it should have several days of dry weather before cutting.

Query 3d. Do they not ferment too much or too little? In making indigo in the East, they judge of the steeping by the color and the smell of the liquor. Sometimes it is complete in six hours, at other times it requires twenty hours This variation in the fermentative process may often arise from the state of the weather before cutting; for if moist from rain, the fermentation will certainly proceed more rapidly than when the weather has been previously dry for several days. It may be influenced also from the state of the plant when cut, whether it has arrived at full maturity, as described by Dalrymple, or whether cut before bursting into flower; as the latter would undoubtedly ferment more rapidly than the former, the condition of the plant being more succulent. The state of atmosphere during the process of steeping, must have a decided effect in either hastening or retarding the fermentation; for when it is clear and dry the fermentation will not be so rapid as when it is hot and moist. It is in this operation that more skill is required than in all others: and unless the operator understands this point, and attends particularly to it, no profit can be derived from the manufacture.

Some of the best indigo I ever used in England was made in South Carolina, by the late Gen. Wade Hampton; who informed me by letter many years since, that the art of making was lost in this country. I presume, however, that it may be recovered again by repeated experiments. In Mr. Winfree's letter, he states that the seasons are often very wet, it sometimes raining for sixty days' in succession, with only two or three days intermission; now such a season must be too moist for the indigofera.

With regard to the beating, it must be continued until all the green particles have become sufficiently acidized to precipitate, for whatever portion remains in a green state will be lost, this portion being soluble in water. WM. PARTRIDGE.

SCIENTIFIC FARMING.

"KNOWLEDGE is power." I would that farmers more generally adopted this maxim. I look around and behold the rapid march of science, the vast improvements in the various mechanic arts, and the onward progress of civilisation. Man has been furnished with everything conducive to his happiness, and endowed with intellectual faculties capable of securing it. He can study the sublime truths of the abstract sciences, his educated and expansive mind can soar above and contemplate the starry heavens, the mighty orbs that wheel their course around the sun; he looks within himself and sees the beautiful simplicity of his internal organization, and is led to exclaim, how "wonderfully and fearfully are we made." The talents of man have been variously exerted and applied since the first formation of society; some of the most brilliant have been exerted in the pursuit of political fame; some have exhausted their energies in the promulgation of the simple and divine truths of religion; the flowing minds of some have roamed over the flowery fields of imagination, and produced the most exquisite poetry; while the powerful and splendid talent of others, like those of a Newton or a Franklin, have demonstrated the most complex and abstruse problems of astronomy and philosophy. But how few have turned their attention to scientific farming, and reduced it to practice! While improvements have taken such immense strides in all other branches of industry, to which as yet man has turned his attention, why is it, that agriculture must remain behind the age, and plod on in its monotonous career? It is, because, until of late, tilling the soil was not considered a dignified occupation, and as requiring no scientific investigation. But it should be studied deeply; each farmer being able, if possible, to analyze his soil, and learn what substance is wanting to mature the seed he expects to commit to it; he should learn the nature and organic structure of each and every plant he wishes to raise, and apply those manures, containing the required matter, to bring them forth in their fulness, and he will be many fold rewarded. The cultivation of the earth is that occupation of which the Deity has expressed decided approbation.

Agriculture is the parent of all sciences; it is coeval with the history of man, and the surest safeguard to a nation's prosperity and welfare, and the means of uniting in the strongest bonds of fellowship, its colaborers. In the earliest age of the world agriculture was deemed paramount with the interests of mankind. The ancients tilled the soil and produced abundantly, and attributed that which was the reward of their own labor to the care of their goddess Ceres. Hesiod sung of the labors of the field; the Carthaginians by agriculture, prepared Sicily to be the granary of the world. Regulus, a Roman senator, sought retirement from public life, to till his farm. No pursuit is more congenial to health, to the free exercise of the physical and mental faculties. The green fields, the gently waving forests, the trees bending beneath their weight of golden fruit, and the rich harvests, bespeak the wisdom, goodness, and design, of an all-powerful Creator. We inhale the pure air, and are led to "look from nature up to nature's God." Yet, young men who have been brought up in the country, must wend to the brick-bound city, in quest of a precarious fortune, which they more often fail in acquiring; whereas, if they would remain in the country, and exert their mental, in connection with their physical powers, they would be sure of a slow but steady gain, and generally make better men. But they must bow to their idol fashion, and sacrifice their fortunes and health upon her altar, not content to live by the sweat of their brows, and read the book of nature as it lies open before them.

By the formation of societies, and the circulation of good agricultural papers, I hope to see a new era dawn on this the mother employment of the earth, on which all other industry must depend for a subsistence. A great stumbling block in the way of improved culture is, the stern prejudice which so many farmers have to so-called "book farming;" they pronounce this with a sarcasm due to uneducated men. I have heard many say, an agricultural paper was the last thing they wished to read; such follow precisely in the footsteps of their grandfathers, and of those farther back, for aught I know. But you have a laudable zeal, in arousing this dormant feeling which has so long prevailed; I heartily wish success to your exertions. Children of the soil, put your shoulders to the wheel of improvement, that it may turn in your favor, and let it carry treasures to your coffers, and happiness to the community at large. Young men, turn your attention to that of rural occupation, which the Father of his country has pronounced "the most healthful, the most useful, and the most noble employment of man."

A YOUNG FARMER.

Flushing, L. I., Sept., 1845.

GALLOWAY CATTLE.

I HAVE been present at two agricultural exhibitions in Scotland, where the best of Galloways were to be seen, and on the whole, I think them a very valuable butcher's beast, producing some of the very best beef in the London market. They are admirably suited to a short pasture, and a severe climate, and when removed to lower districts and richer pastures, make ample remuneration to the grazier. The farmers here who grow turnips, generally tie up a few every winter in the "byre," for fatting, which are sold the following spring to the drover, whose facilities for transportation are already very great, and still increasing, so that the fatted animals lose but little in the transit.

Black is the most approved color of the Galloway cattle, though dun is by no means uncommon now, and occasionally you find an equally pure bred animal, which is belted with white; but the belt must in no case extend beyond the body, having the two ends and the extremities of a jet black. The coat is made a point of the greatest importance, as the animal's best protection in this severe climate. It must be long, thick, and silky, with a wavy rather than a curly character; and in evidence of this, the ear must be large, and at all seasons well fringed with a long lock of hair, hanging from the upper edge across its whole width, and down far below the under edge, thus curtaining the entire opening of the ear.

A good "stare," or, in other words, a prominent and somewhat wild eye, is admired. A broad muzzle is sometimes named as a Galloway feature, and being a hornless breed, the poll must be narrow and running up to a point, as indicating purity of blood, and an absence of all disposition to put forth horns;

for when there has been the slightest cross, the frontal bones always widen, as a preparation for these appendages, and are most jealously watched. The unimproved animal is rather a stiff handler, low in the rump, and rising in the tail, which latter is set far into the back. Breeders are attending to all these points by making careful selections; and in the best animals they are no longer found, or, are at least, very much improved. The Galloway ox stands low on the ground, and comes to the shambles about four years old, weighing about 600 lbs., when from the "high district." The bull is remarkable for those masculine features about the head and neck, which, in my opinion, have been bred too fine and delicate in the improved Short-horns. The Galloway cow is generally a poor milker, and is not expected to do more than bring up her calf. Her milk, however, is very rich, and the butter sweet, and though I am writing from the "higher," or "upper district," I occasionally meet with an excellent Scotch cheese.

The Galloways are generally sold out of the country at two-years old. The heifers are all spayed, except a few selected for the dairy and breeding. They are then kept and fed in England, till nearly four years old, when they fetch the best prices in the London market. This breed would do well in Massachusetts, Vermont, New Hampshire, and Maine; for though the winters are severe and the pastures short, they are generally sweet, and they have a good beef market in Boston. R.

Drumlaw, Scotland, Oct. 1st, 1845.

AGRICULTURE OF MAINE.

THERE is nothing in your paper that interests me more than those of your correspondents in different States, who tell us where they live, and the particulars of their climate, soil, and productions. In hopes, then, that the same account of ours here in Maine will be equally entertaining to others, I submit to your disposal an account of ours. In my account of the climate, &c., of Maine, I propose only to give those particulars which are more immediately connected with her agriculture.

The latitude of Dixfield village—about one geographical mile north of my domicil—is 44° 32′ 46s. north. We have generally about five months continual sledding, and the snow accumulates from three to five feet deep. We expect one month thaw in the winter, under the cognomen of the "January thaw," which sometimes breaks up the ice of two feet or more in thickness in the Androscoggin, and plays some wild pranks along its banks. From this statement it will readily be perceived that we have but about six months in which to perform all our operations in farming, which bring us to the surface of the soil. This, perhaps, is the greatest objection that can be brought against this State as an agricultural one.

Wild animals.—The most of those of a malignant and depredatory disposition have nearly disappeared; and their company is exchanged for those who—though less dangerous to man's safety—are about as troublesome to us. Among these more modern intruders, is the common rat, which was unknown in this neighborhood several years after I came here. Foxes, skunks, and mischievous dogs abound, as with our brethren in the northern States.

Serpents.—Of the poisonous kind, I never heard of any in the State, except some two or three towns in York county; where it is said there is, or has been, some rattle snakes. I do not recollect of seeing but one species of the snake kind in this State. This is of a brownish color on the back, with yellow stripes on the sides, and is two or three feet in length. So you see we are not very snakish.

Birds.—Those kinds of birds which are most common in Massachusetts, abound to some extent here. Some of these, however, are seldom seen, and some never. Among those I have never seen, is the beautiful quail of the middle and southern States. I have not seen a single bobo'link, or thrush, or blue-bird, or common black-bird, that I recollect this summer. Mischievous crows, and saucy jays are plenty enough. Partridges swallows, hawks, and owls, are as common here as in other northern States. Wild pigeons are much plentier here than in Massachusetts.

Wild fruits.—Some species of raspberries are the most plenty. They are, however, an inferior variety of a red color. I have never seen but one bush of the black kind common in Massachusetts, and that is long since dead. The next plentiest is a blueberry, which grows on very low bushes, and is quite a pleasant fruit. The common black whortleberry is not found to my knowledge in this county. I believe they are found in Kennebec; but probably of limited extent. Strawberries are plentier here than I have ever seen them in Massachusetts. Cranberries are found in some places, growing wild, but I have no knowledge that they abound to a great extent. Blackberries of one species only, abound in this State. This appears to be one kind of bush that grows in Massachusetts; though the structure of the bushes, and their green features are merely similar, there is a wide difference in the value of the fruit. The fruit is generally of a conical shape, and I have seen now and then some of a superior size and flavor, perhaps nearly an inch long, and half an inch in diameter at the bore. I have no doubt it might, with pains in cultivation, be rendered a superior fruit. Grape vines are seldom seen, and those that are seen, sour fruit and of little value.

Cultivated products, stock, &c.—Everybody knows that Maine is a good stock country, and is capable of producing as good stock of every kind, as any State in the Union. And was it not for the serious drawback in the profit of raising and keeping, in consequence of the length of our winter, we could compete with any other State.

Wheat.—The depredations of the grain-worm have interposed a serious obstacle to its cultivation in this part of the State. We find we can avoid its ravages by sowing after the twentieth of May; but it is more subject to rust than if sown earlier; so that the alternatives presented are something like (as Pomp the nigger said) avoiding "Silly to run on Carryfagus!" It is, however, cultivated to considerable extent in this country, and perhaps nearly enough raised for home use. But little winter wheat is sown here.

Indian corn.—I find no serious difficulty in raising Indian corn. In the experience of a quarter of a century, I have never had a total failure from frost or otherwise; and I see no reason why we may not cultivate it in this and the more southern and western parts of the State, with a fair profit. It is true we

must be a little careful in selecting early varieties, and a more careful cultivation.

Rye.—When I first cleared my land, I raised good rye, but within a few years I have found, that even with all the risk of the grain worm, I can raise more wheat than rye on an acre. It is, however, raised to considerable extent, but not largely in this part of Maine.

Oats.—Perhaps after wheat and corn, oats will follow next as a generally cultivated crop. I cannot, however, from any figuring I can make, find it so profitable as some other crops; and I find Mr. Colman's report of the agriculture of Massachusetts, gives the smallest profit on oats of any crop cultivated there.

Potatoes.—This crop, I suppose, all know is our hobby up east; and if the remark be true some have made, that every bushel of potatoes round here in Maine will nett as much as every bushel of corn does the inhabitants of the western States, we have but little reason to complain of our lot.

Peru, Maine, Sept. 2, 1845. J. H. JENNE.

CULTURE OF FLAX.

THE following directions for the culture and proper management of the flax crop, were compiled by the Committee of the Society, for the promotion and growth of flax in Ireland. They have been carefully arranged from the mass of information obtained by the Society and their agriculturists, during their four years' experience, in the improved system of management. By this system, Irish flax has been produced, which brought, in some cases, the high prices of £90 to £140 ($450 to $700), per ton. Messrs. Abraham Bell and Son, extensive shipping merchants of this city, have deemed them of so much importance, that they have had them extensively published, and we transfer the same to our columns, esteeming it the most valuable article we have ever met on the subject. If the Flax rotting and dressing machines spoken of page 331 of this number, perform all that is anticipated, the United States will be able to grow large quantities of it for the foreign market, which will be adding another important item to our agricultural exports, and greatly increase the wealth of the farming population. Formerly, considerable quantities of flax were grown in this state and New England, but since the introduction of cheap cotton fabrics as a substitute for linen, its culture has been almost entirely neglected. It is still grown extensively in Pennsylvania, Ohio, and parts of Kentucky.

Soil and Rotation.—By attention and careful cultivation, good flax may be grown on various soils; but some are much better adapted for it than others. The best is a sound, dry, deep loam, with a clay subsoil. It is very desirable that the land should be properly drained, and subsoiled; as, when it is saturated with either underground or surface water, good flax cannot be expected.

Without method, there cannot be success—different soils require a difference of rotation. In the best soils of Flanders, flax is grown in the third year of a seven-course rotation, or the fifth of a ten-course rotation. It is not considered generally advisable to grow flax more frequently than once in ten years. In Belgium, it invariably follows a corn crop—generally oats; and, in this country, where oats is such a principal crop, the same system might be profitably pursued; but it must be understood, that it is only after oats following a green crop or old lea, and never after two or three succeeding crops of oats, which bad practice still prevails in some districts. It is a very general error among farmers, to consider it necessary that flax should follow a potato crop. Except on very poor soils, a better crop will be produced after grain, and the double benefit of the grain and flax secured. If old lea be broken up, and potatoes planted, a very fine crop of flax may be obtained in the following year.

Rotation of Crops for Flax.—The following rotation, which would bring flax once in ten years, has been proposed:—First year, potatoes; second, barley, laid down with grasses; third year, cut for soiling; fourth year, pasture; fifth year, flax; or the one-half might be better in flax, the other in oats—so that, with the return of the rotation, which would be in five years, the flax could be put on the ground which, in the last rotatory course, was under corn, throwing a range of ten years between the flax crops coming into the same ground.

A gentleman of much practical knowledge, recommends the following as being the most profitable:—1. Oats, after grass and clover. 2. Flax, pulled in August; then plowed and harrowed in two cwt. guano and two cwt. gypsum; then sown with rape. 3. Potatoes or turnips, well manured. 4. Wheat, and sown in spring, with clover and rye-grass. 5. Hay and clover. 6. Grazing. 7. Oats. 8. Flax and winter vetches; guano, as before-mentioned. 9. Turnips, well manured. 10. Barley, sown with rye-grass and clover. 11. Clover and hay. 12. Grazing. 13. Oats.

Preparation of the Soil.—One of the points of the greatest importance in the culture of flax, is by thorough-draining, and by careful and repeated cleansing of the land from weeds, to render it of the finest, deepest, and cleanest nature. This will make room for the roots to penetrate, which they will often do to a depth equal to one-half the length of the stem above ground.

After wheat, one plowing may be sufficient on light friable loam, but two are better; and, on stiff soils, three are advisable—one in autumn, and two in spring, so as to be ready for sowing in the first or second week of April. Much will, of course, depend on the nature of the soil, and the knowledge and experience of the farmer. The land should be so drained and subsoiled, that it can be sown in flats, which will give more evenly, and much better crops. But, until the system of thorough-draining be general, it will be necessary, after oats, to plow early in autumn. Throw the land into ridges, that it may receive the frost and air; and make surface drains, to carry off the rains of winter. Plow and harrow very early in spring; and again, a month after, to bring the land into good tilth, and clean it thoroughly from weeds and roots. Following the last harrowing, it is necessary to roll, to give an even surface, and consolidate the land, breaking this up again with a short-toothed or seed harrow, ere sowing.

Sowing.—The seed best adapted for the generality of soils is Riga, although Dutch has been used in many districts of country, for a series of years, with perfect success. American seed does not generally suit well, as it is apt to produce a coarse, branchy

stem. If used, it should only be on deep, loamy soils. Select plump, shining, heavy seed, of the best brands, from a respectable merchant. Sift it clear of all the seeds of weeds, which will save a great deal of after trouble, when the crop is growing. This may be done by fanners, and through a wire sieve, twelve bars to the inch. Home-saved seed, grown from foreign, has been used in many cases with success. It is suggested, that a small portion of the crop may be allowed to stand, until the seed be fully ripe, and then pulled, and the seed preserved for sowing; but the seed saved from *it* in the following year, should only be used for feeding, or sold for the oil-mills. The proportion of seed may be stated at three-and-a-half imperial bushels to the Irish or Plantation acre; and so on, in proportion, to the Scotch or Cunningham, and the English or Statute measure. It is better to sow too thick than too thin; as, with thick sowing, the stem grows tall and straight, with only one or two seed capsules at the top, and the fibre is found greatly superior in fineness and length, to that produced from thin sown flax, which grows coarse, and branches out, producing much seed, but a very inferior quality of fibre. The ground being pulverized and well cleaned, roll and sow. After sowing, cover it with a seed-harrow, going twice over it—once up and down, and once across, or anglewise; as this makes it more equally spread, and avoids the small drills made by the teeth of the harrow. Finish with the roller, which will leave the seed covered about an inch, the proper depth. The ridges should be very little raised in the centre, when the ground is ready for the seed, otherwise the crop will not ripen evenly; and when land is properly drained, there should be no ridges. The sowing of clover and grass-seeds along with the flax is not advised, when it can be conveniently avoided, as these plants always injure the root-ends of the flax. But carrots may be sown in suitable soils in drills, so that the person pulling the flax may step over the rows, which may be afterward hoed and cleaned, and should have some liquid manure. A stolen crop of rape or winter vetches may be taken after the flax. Rolling the ground after sowing, is very advisable, care being taken not to roll when the ground is so wet that the earth adheres to the roller.

Weeding.—If care has been paid to cleaning the seed and the soil, few weeds will appear; but if there be any, they must be carefully pulled. It is done in Belgium by women and children, who, with coarse cloths round their knees, creep on all fours. This injures the young plant less than walking over it—which, if done, should be by persons whose shoes are not filled with nails. They should work also facing the wind, so that the plants, laid flat by the pressure, may be blown up again, or thus be assisted to regain their upright position. The tender plant pressed one way soon recovers; but if twisted or flattened by careless weeders, it seldom rises again.

Pulling.—The time when flax should be pulled, is a point of much nicety to determine. The fibre is in the best state before the seed is quite ripe. If pulled too soon, although the fibre is fine, the great waste in scutching and hackling renders it unprofitable; and, if pulled too late, the additional yield does not compensate for the coarseness of the fibre. It may be stated, that the best time for pulling is when the seeds are beginning to change from a green to a pale brown color, and the stalk to become yellow, for about two-thirds of its height from the ground. When any of the crop is lying, and suffering from wet, it should be pulled as soon as possible, and kept by itself. So long as the ground is undrained, and imperfectly levelled before sowing, the flax will be found of different lengths. In such case, pull each length separately, and steep in separate pools, or keep it separate in the same pool. If the ground has been thoroughdrained, and laid out evenly, the flax will be all of the same length. It is most essential to take time and care to keep the flax *even, like a brush*, at the root ends. This increases the value to the spinner, and of course, to the grower, who will be amply repaid by an additional price for his extra trouble. Let the handfuls of pulled flax be laid across each other diagonally, to be ready for the

Rippling—Which should be carried on at the same time, and in the same field with the pulling. If the only advantage to be derived from rippling was the comparative ease with which rippled flax is handled, the practice ought always to be adopted. But besides this, the seed is a most valuable part of the crop, being worth, if sold for the oil-mill, £3 per acre; and if used for the feeding stock, of all kinds, £4 per acre. The apparatus is very simple. The ripple consists of a row of iron teeth screwed into a block of wood. This can be procured in Belfast, or may be made by any handy blacksmith.* It is to be taken to the field where the flax is being pulled, and screwed down to the centre of a nine-feet plank, resting on two stools. The ripplers may either stand or sit astride, at opposite ends. They should be at such a distance from the comb as to permit their striking it properly and alternately. A winnowing sheet must be placed under them, to receive the bolls as they are rippled off; and then they are ready to receive the flax just pulled—the handfuls being placed diagonally, and bound up in a sheaf. The sheaf is laid down at the right hand of the rippler, and untied. He takes a handful with one hand, about six inches from the root, and a little nearer the top with the other. He spreads the top of the handful like a fan, draws the one-half of it through the comb, and the other half past the side; and by a half turn of the wrist, the same operation is repeated with the rest of the bunch. Thus the flax can be rippled without being passed more than once through the comb. He then lays the handfuls down at his left side, *each handful* crossing the other, when the sheaf should be carefully tied up and removed. The object of crossing the handfuls so carefully after rippling, when tying up the beets for the steep, is that they part freely from each other when they are taken to spread out on the grass, and not interlock and be put out of their even order, as would otherwise be the case. If the weather be dry, the bolls should be kept in the field, spread on winnow-cloths, or other contrivance for drying; and if turned from time to time, they will win. Passing the bolls first through a coarse riddle, and afterward through fanners, to remove straws and leaves, will facilitate the drying. If the weather is moist, they

* The best ripples are made of ½ inch square rods of iron, placed with the angles of iron next the ripples 3-16th of an inch asunder at the bottom, ½ inch at the top, and 18 inches long, to allow a sufficient spring, and save much breaking of flax.

should be taken in-doors, and spread out thinly and evenly on a barn floor, or in a loft, leaving windows and doors open, to allow a thorough current of air; and turned twice a day. When *nearly dry*, they may be taken to a corn-kiln (taking care not to raise it above summer heat), and carefully turned, until no moisture remains. By the above plan of *slow* drying, the seed has time to imbibe all the juices that remain in the husk, and become perfectly ripe. If it be taken at once from the field, and dried *hurriedly* on the kiln, these juices will be burned up, and the seed will become shrivelled and parched, little nutritious matter remaining. In fine seasons, the bolls should always be dried in the open air, the seed threshed out, and the heaviest and plumpest used for sowing or crushing. The light seeds and chaff form most wholesome and nutritious feeding for cattle. Flax ought not to be allowed to stand in the field if possible even the second day; it should be rippled as soon as pulled, and carried to the water as soon as possible, that it may not harden.

Watering.—This process requires the greatest care and attention. River water is the best. If spring water has to be used, let the pond be filled some weeks, or months, if possible, before the flax is put in, that the sun and air may soften the water. That containing iron, or other mineral substances, should never be used. If river water can be had, it need not be let into the pond sooner than the day before the flax is to be steeped. Place the flax in the pool, in one layer, somewhat sloped, and in regular rows, with the root end uppermost. Cover with moss sods, or tough old lea sods, laid perfectly close, the sheer of each fitted to the other. Before putting on the sods, a layer of rushes or rag-weeds is recommended to be placed on the flax, especially in new ponds. Thus covered, it never sinks to the bottom, nor is it affected by air or light. A small stream of water allowed to run through a pool has been found to improve its color. It will be sufficiently steeped, in an average time, from eight to fourteen days, according to the heat of the weather and the nature of the water. Every grower should learn to know when the flax has had enough of the water, as a few hours too much may injure it. It is, however, much more frequently *under*-watered than *over*-watered. The best test is the following:—Try some stalks of average thickness, by breaking the *shove*, or woody part, in two places, about six or eight inches apart, at the middle of the stalk; catch the broken bit of wood, and if it *will pull freely out, downward, for that length, without breaking or tearing the fibre, with none of the fibre adhering to it*, it is ready to take out. Make this trial every six hours, after fermentation subsides, for sometimes the change is rapid. Never lift the flax roughly from the pool, with forks or grapes, but have it carefully handed out on the bank, by men standing in the water. Spread on the same day it is taken out, unless it be raining heavily; light rain does little harm. If it cannot be spread, let it be set on end, or separated into small parcels, to prevent it heating in the heap. It is advantageous to let the flax drain for a few hours after being taken from the pool, by placing the bundles on their ends, close together, or on the flat, with a slope.

Spreading.—Select, when possible, clean, short, thick pasture ground for this operation; and mow down and remove any weeds that rise above the surface of the sward. Lay the flax evenly on the grass, and spread thin and very equally. If the directions, under the head of rippling, have been attended to, the handfuls will come readily asunder, without entangling. Turn it two or three times while on the grass (with a rod about eight feet in length, and an inch and a half in diameter), that it may not become of different shades, by the unequal action of the sun, which is often the case through inattention to this point. Turn it when there is a prospect of rain, that the flax may be beaten down a little, and thus prevented from being blown away.

Lifting.—A good test of its being ready to lift, is to rub a few stalks from the top to the bottom; and, when the wood breaks easily, and separates from the fibre, leaving it sound, it has had enough of the grass. Also, when one stalk in fifty is perceived to form *a bow and string*, from the fibre contracting and separating from the woody stalk. But the most certain way is to prove a small quantity with the hand-break, or in a flax mill. In lifting, keep the lengths straight and the ends even, otherwise great loss will occur in the rolling and scutching. Tie it up in small bundles; and if not taken soon to be scutched, it will be much improved by being put up in small stacks, loosely built, with stones or brambles in the bottom, to keep it dry, and allow a free circulation of air. Stacks built on pillars would be the best.

Drying.—By fire, is *always pernicious.* If properly steeped and grassed, no such drying is necessary; but to make it ready for breaking and scutching, exposure to the sun is sufficient. In some districts, it is put to dry *on kilns*, in a damp state, and is absolutely burnt before it is dry, and the rich oily property of the flax is always greatly impaired. On this point, the Society can scarcely speak too strongly, as the flax is either destroyed or rendered not worth one-half of what it would be, if properly dried.

Breaking or Scutching—If done by hand, should be done on the Belgian system, which is less wasteful than that practised in Ireland. If by milling, the farmer will do well to select those mills in which the improved machinery has been introduced. The Society would also recommend that the farmer should endeavor to have his flax scutched by a mill owner who pays his men by the day, and not by the stone, even if it should cost him higher in proportion—the system of paying the scutchers by the stone, rendering them more anxious to do a large quantity in the day, than to produce a good yield from the straw.

The Courtrai System.—This is the universal mode in the district from which the finest flax we receive is brought. As soon as pulled, the flax is stooked without binding it. The handfuls are set up, resting against each other, the root ends spread out, and the top ends joining like the letter A, forming stooking about eight feet long, and a short strap keeping the ends firm. In this way, it will resist wind and rain well, and dry fast. In six or eight days it may be stacked in the field; the seed to be taken off at leisure, in winter; the flax to be steeped the following May—a system which possesses the advantages of affording the farmer the best season of the year for steeping and grassing, and a time of comparative leisure, when his attention is not called to the harvesting of other important crops. It has, in many cases, when tried in this country, proved highly successful;

although in others it has failed, from want of experience, perhaps in watering and grassing it. The treatment in this way has made the flax, in some cases, worth two or three shillings per stone more, than part of the same crop steeped green. It is recommended that trials of this system should be made, in the first instance, on a small scale.

To avoid exhausting the Land by growing Flax.—It has always been urged against flax culture that it exhausted the soil; but this is not necessarily the case. If the seed be saved, and cattle fed upon the bolls, a valuable addition will be made to the manure heap, as, perhaps, the richest manure is produced by this kind of food. The putrescent water from the flax pools should be carefully preserved, and either used as a top-dressing for grass, or mixed with the weeds, and other refuse of the crop, in a heap to ferment. By these means almost all the matter abstracted from the soil by the flax crop, would be returned in the shape of manure—the fibre being supplied by the atmosphere alone.

Flax Society's Office, Belfast, 1st January, 1845.

WESTERN CALENDAR FOR NOVEMBER.

About the beginning of this month corn is generally dry enough to crib, and all hands should be engaged in securing the crop before it is time to spread hemp for winter rotting. There are two methods of saving that which has not been cut up, and put in shock. The most expeditious method is to shuck the corn on the stalk, and pitch it directly into a wagon, and haul it to the crib. But this plan is subject to the inconvenience of putting all the corn—small and large, good and bad—together. The other plan is to gather the corn, without shucking, haul it to a place near which it is to be cribbed, and there shuck it; and assort the corn while loading the wagon, and put the different kinds in separate cribs. If there is a suitable shelter for throwing the corn under, as it is hauled, and for saving the shucks, the latter plan is the preferable one.

Much corn is cut and put in shock, which is not intended to be fed to stock. This is cut up only for the purpose of saving the fodder. This should be shucked out, when the fodder is damp, so that it may again be put in shock, and saved for winter feeding to cows, young cattle, sheep, &c.

At leisure times, during this month, and when the weather is not suitable for gathering corn, the prudent farmer should be cutting and laying in a stock of fire wood.

The first of November in latitude 39° and 40°, is the proper time to put the rams (which should have been separated at shearing time) to the ewes. This will make the lambs begin to come early in April—the time of gestation being five months. At this period the ewes will have a good bite of grass, which will occasion a flow of milk, and but very few lambs will be lost. Farther north it would be prudent to keep the bucks from the ewes till a somewhat later period. In this month preparation should be made for feeding stock during the winter, especially in the more northern latitudes. In Kentucky blue-grass pastures, which have been kept in reserve for winter use, are still very fine, and will afford abundance of food for all kinds of stock. A. Beatty.

Prospect Hill, Ky.

TRANSACTIONS OF THE STATE AGRICULTURAL SOCIETY.

I observe in the October No. of the Cultivator, a reply to my remarks in your September No., on the Transactions. The tone of the reply indicates more than I had thought there could be in this matter. My remarks pointed to the Society and its interests, and to the proper preparation of its Transactions for publication. The editor of the Cultivator makes them personal to himself. Not intending to attack any person, it seems I have unwittingly hit the editor of the Cultivator. The wounded bird flutters, and thus betrays itself. My object was alone to call attention to the volume of Transactions of last year, and secure proper ones for the future. But I am deemed as attacking in an "ungentlemanly" manner "one of the best agricultural writers and most estimable men in the State." As to "ungentlemanly attack," everything seems to be *ungentlemanly* in the eyes of the Cultivator which criticizes itself or friends, however fairly or justly. It would probably have the world believe if it could, that they monopolized all the good breeding of the land, as well as the patronage of the agricultural community. I believe, Mr. Editor, that in pure mockery, you denominated the Cultivator the "agricultural Chesterfield of the age." It probably took this in serious part, and its vanity really made it believe itself so in earnest. But we will let this very potent and stereotyped argument pass for what it is worth. I had heard it said, and frequently, that the State Society had the appearance of being managed to promote the private interests of certain persons. I wished that the Society should no longer be subject to this censure.

The committee of publication consisted of Dr. Beekman, and the editors of the Cultivator and Genesee Farmer. The gentleman who was employed by that committee is an assistant editor of the Cultivator. The Cultivator is printed by Mr. Van Benthuysen, the *actual* printer to the Senate. (The nominal printer to the Senate is Mr. Mack, of the Senate, who sells his contract to Mr. Van Benthuysen at a profit of 15 per cent.) The profit of printing the last volume of Transactions has been stated to me by a printer at $2,000. About $7,000 were received for it by the printer to the Senate. Cook and Carrol, the printers to the assembly, offered to print it for $4,000. If $4,000 be the expense of printing it, then Mr. Mack could receive his 15 per cent., and leave to Mr. Van Benthuysen $2,000 profit out of the $7,000. Prior to the session of the legislature of 1844, the Executive Committee of the Society, by law, had to report to the Secretary of State, and he sent the report to either the Senate or the assembly as he chose. In 1844, it was sent to the House, and printed of course, *not* by Mr. Van Benthuysen. In 1844, a little clause was added to a law, which purported to be passed for another purpose, by which the Executive Committee were allowed to send the Transactions to *the Legislature*. The Executive Committee, among others, included all of the publishing Committee. When the Transactions were completed, they went directly to the Senate, and were printed by Mr. Van Benthuysen, the printer of the Cultivator.

It was a matter of public notoriety at Albany last winter that an attempt was made by a *part* of the Executive Committee to have the Transactions sent to the House; and that others, not of the Committee, desired they should take that direction. With this view some action was attempted in the House, but was defeated *mainly* by Mr. Comstock, a member from Oneida County. The Central New York Farmer had been (prior to this) merged in the Cultivator; and one of its editors, Mr. Comstock (brother of the Mr. Comstock above, in the legislature), is now connected

with the Cultivator editorially, or as a correspondent, Mr. Johnson, the other editor, was of the Executive Committee. In addition to this, Dr Lee was by the Executive Committee made official lecturer to the State Society, and was to receive for sale in his lecturing excursions, a certain number of the volumes of the Transactions for his own benefit.

Now here was, whether intended or not, a varied combination of men and circumstances, pointing all to the Cultivator. I am aware that the Editor of the Cultivator received no salary of the State Society as Recording Secretary. If he has received no compensation *indirectly*, his labors have been *highly disinterested!* He asserts that "all his labors in behalf of the Society for three years were bestowed without fee or reward." He himself here makes a new issue. Let me ask if he did not receive $1,000, or a sum nearly equivalent to this, for *merely reading* the proof sheets of the Transactions of the Society for last year? If he did not, it is strange, for he himself is the authority for it. When urging that the Transactions should be sent to the Senate (to which Dr. Beekman was opposed throughout, and Dr. Lee at first, both desiring them to go to the House; but subsequently Dr. Lee changed positions, and voted for their transmission to the Senate) he remarked to a fellow-Executive-Committee-man, who desired the report to go to the House, that its being sent to the Senate would benefit him (the Editor of the Cultivator) a thousand dollars. Was not that $1,000 received from Mr. Van Benthuysen for reading proofs? If so, were not his official position and the patronage of the Society used to assist the Cultivator or its editor?

Again: his friends have asserted that the position of Recording Secretary alone brought 1500 subscribers to the Cultivator. If his friends knew this, he was undoubtedly the source of their knowledge. Then his service is indeed *disinterested!* Better that there should be a "*fee and reward*," for then there might not be a perversion of official patronage to pay for labor that apparently was done of mere good will. The evidence that his friends (in interest, if nothing else) have urged that he should be Secretary to benefit the Cultivator is *not verbal*, and is in possession, and can be produced at once if it be necessary.

There is connected with this subject another matter well worthy of attention. Hitherto, no person has been (and it has been said no person could be) an influential member in the Society unless he had that connection with the Cultivator, which springs from subscription or indefinite friendly relations. If it be a direct result of a design and action in pursuance, then have persons been victimised that there might be an indirect substitute for a direct "fee and reward."

A curious part of this whole system of no "fee or reward," was witnessed at Albany last winter. A bill was introduced into the House, directing every County Superintendent of Common Schools in the State, to subscribe for as many copies of the Cultivator as there were school districts in their counties. The subscription and postage to be paid by the State out of the School funds. And how was all this to be effected? By these very relations; by the exercise of that influence which springs from the possession of executive patronage. The committee of the House, to which the bill was referred, reported it back and advocated its passage; and every man who stood in a position to the Cultivator of either interest or *indefinite friendly relations*, was found urging it in the lobby or the House. However, the good sense of the House killed the bill. This, if it had passed, would have given 12,000 additional subscribers to the Cultivator, with the pay certain, and subject to no commissions. This was a "*fee and reward*" worth working for, and evinced a most decided *disinterestedness!*

The reply of the editor of the Cultivator is professedly a defence of Mr. Thomas, his co-editor, but is one in effect of himself. I have not found fault with Mr. Thomas for inserting his prize essays. I congratulate him on his *good fortune* in winning *so many* of the prizes awarded by the Executive Committee for essays; and it was the duty of the Society to publish them, and in this, Mr. Thomas, as compiler, had no duties to perform. And yet, from the circumstances that have surrounded the whole matter of the preparation and publication of the Transactions of last year, some persons have censured the Executive Committee in reference to these very prize essays, it having been said, that although the Committee had no names appended to the reports, they knew the hand-writing of Mr. Thomas, and were some of them led in that direction by that knowledge. All this is wrong, and it may be that even his essays were not in his hand-writing. But it illustrates this one truth, that when matters of this kind look suspicious, in one particular, the world will deem them suspicious in all.

My object was to urge the publication of the *real Transactions* of the Society hereafter. Instead of these the publishing Committee and Mr. Thomas in conjunction in the last volume, have substituted speeches, theoretical speculations, and essays on the agriculture of distant States. Are these *Transactions?* No! Why then publish them?

The position I assumed is admitted by the reply of the Cultivator; and all the evasion of coming to the rescue of Mr. Thomas, who has not been assailed, is mere subterfuge to direct attention from the main point to Mr. Thomas and secure sympathy for him. I asked if it were not giving undue advantage to the papers edited by the Recording and Corresponding Secretaries of the State Society, that they should be allowed to appropriate to themselves the patronage of the Society. This is not met, but a new issue is raised. Is it not evident from the statement I have now made that this is true?

In conclusion, are not the Transactions public property? Are not the gentlemen who assume to prepare them, accountable to the public for the proper discharge of their duties? The State pays thousands of dollars every year to publish the volume of Transactions; and however much the editor of the Cultivator may wince, the just expenditure of the people's money will be looked to by those who know something of the matter as well as himself. The light cannot be hid under a bushel; and I will not stand by for one, and see the noble Agricultural Society of this State, like too many things in New York, be made a selfish tool of, and turned from its grand design of advancing the public good on the broadest possible basis, without lifting my warning voice against the measure.

We shall now see what the Cultivator has to say to this, and, perhaps, in my next, if it becomes necessary, and it be not deemed too "ungentlemanly," I may undertake to show how much and how many ideas of certain prize essays have been *plagiarised* from others, and foisted on to the Society as *original* and paid for in solid gold. Indeed, I consider the whole thing, a sort of Cultivator monopoly, and managed at present, almost entirely for the benefit of a favored few.

New York, Oct. 1845. A MEMBER.

MOUNT HOPE BOTANIC GARDEN AND NURSERIES, ROCHESTER, NEW YORK.—We have received catalogues from Messrs. Ellwanger & Barry, the proprietors of this extensive and very complete establishment, and shall be pleased to distribute them. This is one of the best nurseries and gardens in Western New York, abounding with excellent varieties of fruit, &c., and we heartily commend it to attention.

Ladies' Department.

ADVICE TO WESTERN EMIGRANTS.

Will that portion of your female readers who are intending to leave the "old homestead," and seek "a new home in the West," accept of a little plain advice from one who has grown grey in the emigrant's log cabin, and if from experience he has learnt wisdom, will be able to give advice which will be practically useful.

In the first place why are you going to the West?—For I hold it to be "self-evident" that no good husband will abandon the old home for a new one, contrary to the wishes of his wife, and therefore the question is to her.

If the object is mainly to find husbands for those "young ladies" who, in consequence of false pride, and foolish fashion, have been reared in idleness, and taught "all the accomplishments of a fashionable boarding school," let me tell you that you are going to an overstocked market. There is but a very small portion of the inhabitants of an old country that make good pioneers in a new one.

Notwithstanding we have unnumbered acres of rich soil at the West, I never can advise an eastern farmer who is able to "make both ends meet," to become an emigrant: for if he will exercise the same frugality and cheap mode of living that he will be compelled to when he gets into his new log cabin, he can remain comfortable where he is, and ought to be contented and happy. He ought to bear in mind that all those rich acres are only the *raw material*, out of which farms are to be created; and he ought to know, but more particularly his wife and daughter ought to know, that they will have to endure many deprivations and hardships in a log cabin, that never were dreamed of in a carpeted parlor with its piano and other accompaniments. Although there are many who "make matters worse," there are others who make them better by emigrating. Don't understand me that I think none but those who are so poor that they cannot live here can better themselves by emigrating. Far from it. It is capital that we most need at the West, and it is there that it can be most profitably used. And there are thousands of farmers in the Eastern States whose farms are under mortgage so heavy, that they labor year after year without any other hope than keeping the interest from accumulating upon the principal, and yet they might sell and save enough to make a comfortable home in the West. It is such who ought to emigrate, and it is the duty of the wife and daughter of such to say, "husband—father—sell the old farm and let us all go to the West."

This is a wise resolution. The hardest part of the task is, however, starting, and the determination to do that, accomplishes one half. Now this family, raised in comparative luxury, stand most in need of advice.

First, as to what they shall take.—Ah, my dear girls, wipe away those tears. I see you divine that I am going to tell you that you must leave the piano. Yes, you won't need it. True it cost $150 or perhaps $300, money foolishly laid out, too, on account in part for which "that mortgage" was given, and it will now only bring half the money; but that will buy 120 acres of the richest kind of the western soil. You don't know how much an elegant piece of furniture of this kind looks out of place in a log cabin. I do. During my travels last winter, I came upon a lonely cabin all unadorned by plant or shrub, and against the rough black logs, and upon the rough puncheon floor, stood a costly piano. The wife had been raised in luxury, fitted for life with a finished education, which naturally unfitted her now, without servants to take care of her humble house and growing family. And what use had she for a piano? None whatever. But before marriage it had been her dearest friend, and now her parents, thinking to make her a most acceptable present, had sent her this old friend (dear at the cost of freight), soon to be ruined under its rough shelter. Half its cost in necessary and useful articles, would have been far more valuable. I now speak to the farmers who expect and intend to occupy a log cabin in the West. In preparing then to emigrate, dispose of all costly, easily damaged articles of furniture. Take no tables, chairs, bedsteads, sofas, bureaus, except, perhaps, one very plain one, well packed, for upon all such articles you will have to pay freight by the pound. Sell the china and cut glass, and pack up only what you now call the kitchen, table, and cooking furniture. Don't take, to break, those great gilt looking glasses; cheaper ones will look as well, in which you will look as well as in better.—A rag carpet must be substituted for those for which "that mortgage" was given. Yes, certainly, the book-case must go, and let it be well filled and don't forget to leave the needful with the printer to induce him to continue to send "the paper" to your new home in the west.—Beds and bedding carefully packed in tight boxes or barrels, and in the proper way, and let every article be put up and plainly directed. Don't say it is not necessary because you are going with the things and can see to them; you might as well undertake to see to a whirlwind, and in that your moveables would not be handled more roughly than they will upon drays, canal boats, steamboats, and wagons, before they are finally tumbled out in a heap at the door of your new home. I do not object, ladies, to your taking all those rich dresses. But I do object to your taking them in any other way than under safe lock and key. For your journey, have nothing in use more costly than plain calico.

And now, girls, as you cannot well cultivate instrumental music in a log cabin, nor sport your silks and prunellas through the abundant black mud of a rich western soil, so as to occupy all your time, let me assure you that in that soil you can cultivate lovely flowers, and beautiful shrubs, vines and fruits; and soon cover over the "ugly black walls" of your new house, with climbing roses and fragrant honeysuckles. So be sure that for this you go well provided. You may as well lay in a good supply of "small fixings" such as threads, needles, pins, tape, &c.; but all the larger articles of merchandise, and such articles of furniture as you will really need, you can get in any of the large towns near your new location.

My advice is, that you take nothing (excepting articles in the clothing line) that will be superfluous in a log cabin. "But," I hear you say, "surely chairs, tables, and bedsteads, which you direct us not

to take, are not superfluous." Oh, no; very plain cheap ones are not so. I only want you to count the cost of carriage, and risk of injury and loss, before you decide to move lumber of any kind.

Another piece of advice, that is very necessary for your happiness to be strictly followed, is, that you come to a full determination, that happen what will of perplexity or privation, you will keep up a continual cheerful spirit. This also is due to your husband and father, who will need all the smiles and love of his wife and children, to enable him to endure the toil and trouble of making you a new home, that in a few years will compensate you all for the temporary inconveniences that you have *enjoyed*—yes, enjoyed, not suffered; for I assure you that you can enjoy inconveniences. My wife, God bless her, often says that she never enjoyed any portion of her life better than she did the first winter upon the prairie, where we now live; when she had only a low log cabin, sixteen feet square, which had not a sawed board about it; being built of round poles, the cracks filled with mud; the chimney built of sticks and clay; around the warm hearth of which often had we half a score of emigrants, who had nowhere else to shelter themselves from the blasts of a wintry night; for be it remembered, that we began our emigrant's life "fifteen miles from neighbors," and enjoyed it cheerfully. So my dear friends, can you.

I could advise further, but nobody likes unasked advice. Believe me, your old friend of Indiana,

New York, Oct. 6th, 1845. SOLON ROBINSON.

A DELICIOUS APPLE-PUDDING; Very convenient, as it may be made several hours before it is baked, or when a nice addition is wanted unexpectedly.—Pare and chop fine, half a dozen or more, according to their size, of the best cooking apples—grease a pudding-dish, cover the bottom and sides half an inch thick with grated bread, and very small lumps of butter: then put a layer of apples with sugar and nutmeg, and repeat the layers until the dish is heaped full. Before adding the last layer, which must be of bread and butter, pour over the whole, a teaspoonful of cold water. Put it into the oven as soon as dinner is served, and bake it for 25 or 30 minutes. It may be baked the day before it is wanted; when it must be heated thoroughly, turned into a shallow dish, and sprinkled with powdered sugar. It requires no sauce.

TO PICKLE EGGS.—Any that are left from market and not wanted for immediate use, make a nice and very pretty pickle to garnish cold meat with. Boil them until quite hard, take off the shells, put them carefully in large mouthed jars, and cover them with cold vinegar, and they will keep well for several months. If white wine vinegar is used, they will retain their whiteness; they may be made a beautiful yellow, and the flavor improved by the addition of yellow mustard powdered, or a fine red, by using vinegar in which beets have been kept.

SPICED VINEGAR.—This is preferred by some persons, and may be made by heating vinegar in a jar, set in a pot of cold water, which must be heated to boiling. Put in whole pepper, cloves of garlic, race ginger, cloves, salt; keep it closely covered until quite cold, and bottle for use.

Boys' Department.

THE HISTORY OF THRIFT AND UNTHRIFT.

(*Continued from page* 322.)

Josey's Farming.—With Josey, or as we must now dignify him, Mr. Unthrift, things were quite different. He was going down-hill while Thrift was going up; yet he took it as easy as he used to do his whippings at school, and thought himself equally as little to blame now as then; in short, "it was all his luck," as he used to say.

His fences were seldom all up at the same time; and when they were repaired, which was never done till the last minute, they were just hitched together, so that the first unruly ox that came along, would tumble them over if he squinted very hard at the dwindled, stunted crops, growing on the other side. Indeed, the poverty-stricken appearance of the crops themselves, more often prevented depredation than the fences. He got up late, had his breakfast late, and never went out to work before he ate it. By this time, the dew was off, and none of it was hoed into the ground, or moistened the grass to make the scythe cut easier. He plowed late, sowed late, planted late, and harvested late; but he had one great advantage in all this, for he had so little to gather, that it never took a great while to secure his crops; or if the storms, snow, or ice, did get them at last, he always consoled himself with the idea, "that really he hadn't lost much—they were hardly worth gathering." He had a very good orchard on his farm ten years before, thanks to the owner who preceded him, but the wind had broken off some of the branches, and for want of trimming, the broken and dead limbs had rotted down to the trunks, and made the bodies quite rotten, and the fruit itself had become stunted and wormy, and didn't bear much of any; and the few it bore, were only fit for the hogs, which, for the want of suitable attention, matched very well with the apples. These he had procured by years of breeding, peculiar to many of the farmers. He always killed the best pigs because they were fattest, and as soon as he got one into the pen that would not fat at all, he said she would have pigs just as well as any others, and 'twas a pity to save the best, as they were worth something for pork. His sheep were neglected and got the scab. He consoled himself by denouncing the whole flock as a mis-begotten race, and unworthy his regard, and turned them on to the common, where the dogs and crows soon removed both sheep and scab together. His cattle became poor from short allowance and want of attention; and as misery loves company, poverty was soon followed by lice, and thinking them too degenerate for the attention of a man of his expectations, he called them a lousy, drivelling race of Pharaoh's lean kine, and traded them off for anything he could get in exchange, old muskets, fish-nets, and a trooper's second-hand rig. His house was leaky, wanted shingling, but in rainy weather he couldn't go out to do it, and when it was fair he didn't want it; so his wife was taken sick from damp rooms, his children had the scarlet fever, and he got a confirmed rheumatism which lasted him for life. The remainder of Thrift and Unthrift's career shall be given in your next volume; in the meanwhile I hope all your young readers will take lesson from what is already inscribed them by

A FRIEND TO THE BOYS.

FOREIGN AGRICULTURAL NEWS.

By the arrival of the steamship Hibernia, we have our file of European journals up to October 4th.

Markets.—*Ashes* were brisk at an advance. *Cotton* had fallen ¼d per lb., and was dull. The stock on hand at Liverpool, on the 1st of October, was 947,000 bales, against 901,000 same period last year. *Beef* in good demand at an advance. *Pork* the same. *Lard* as per our last. *Cheese* on the rise, and a light stock of all kinds of provisions on hand in England. *Flour* had fallen a trifle, but was in good demand. *Hemp* lower. *Rice* dull. *Tobacco* a fair inquiry. *Wool* brisk. The introduction of the wools of the United States into England is a new feature in this branch of business; and the success which has hitherto attended the speculation must lead to a more extensive import from this side of the Atlantic.

Money is in considerable demand, and the rate of interest has advanced as high as 3 and 4 per cent. This is owing entirely to the insane spirit of railroad speculation.

The Weather.—Just before the sailing of the packet the weather cleared up and was considered favorable. It is conceded, however, that the wheat crop is below an average. Potatoes are a poor yield in Great Britain and on the Continent, having suffered much from the rot.

Death of Earl Spencer—formerly Lord Althorp.—This excellent nobleman, and distinguished farmer, and stock breeder, died at his favorite country-seat, Wiseton Hall, on the 1st of October. His disease was gout in the stomach. He was for some time the leader of the Whig party in the House of Commons, and Chancellor of the Exchequer during Earl Grey's ministry. Latterly he had taken little interest in politics, save in the beneficent movements for repealing the corn laws, but had devoted himself to the rearing of stock, and the great interests of the improvement of agriculture. He will be deeply lamented by the farmers of England, for few are able and at the same time willing to take his place. He was a widower, and died without issue, in his 64th year. He was a man of fine personal appearance, and although so long in public life, he was diffident and retiring in his manners to a fault. We presume his brother, the Hon. Capt. Spencer of the Navy, succeeds to the title.

Home Manures.—Is it generally supposed that beds of rivers and brooks fill up or wear away, and become deeper by age? Or do they remain the same? If they fill up as I am inclined to think, how much may be gained by deepening and spreading the finest alluvial soil on the adjoining meadows, as well as gaining a greater fall for inland draining. We read also of clearing away peat earth by running water and floating it out to sea—an entire waste—in order to uncover and bring into cultivation the soil below. Now, if we put ourselves to so much expense in guano and chemical preparations, is it not rather surprising that it should not have occurred to hundreds that this very peat would be the finest possible manure on sandy and clay soils? and would be more durable than any animal manure whatever. The drifting and blowing sands on our seacoasts, particularly about Liverpool, might be advantageously covered with peat, and the peat land again with this sand to the great advantage of both occupiers; so might also the sea beach about Lid lighthouse and Pevensea levels be covered and brought into use. And where lime has been used for ages the peat would be the very best manure that could be used, to restore that vegetable portion of the soil that the lime has destroyed. This, it appears to me, would be a source of home trade more beneficial by far than the distant and disappointing guano trade where so many ships are unable to procure cargoes, and mix up their half ship loads with sand and loam, to the injury and disappointment of us poor farmers.—*Gar. Chron.*

Weeds on Gravel Walks.—Seeing in your columns receipts for eradicating weeds on gravel walks, and thinking "prevention better than cure," I beg to mention a plan which I have always found to answer. It is simply, when forming your gravel walks, and before laying on the gravel, to spread a layer of the dark-colored soapwaste, which may be got from any soapery, if in the neighborhood, and then putting the gravel on it and rolling both of them, after spreading, as firmly as possible. This will not only prevent weeds from growing, but will form a walk as hard and solid as cement.—*Ibid.*

New Clover.—Two new clovers have been attracting attention in France, concerning which we find some information by M. Vilmorin, in the *Bon Jardinier*; one is the hybrid and the other the elegant. Elegant-clover was for some time considered identical with one called T. hybridum, cultivated in Sweden; when, however, growing together, the differences are striking: the latter is larger in all its parts than the former, and the color of its flowers is a brighter rose, shaded with white in the centre, while the elegant-trefoil has rather dull reddish rose blossoms, colored alike in every part of the flowerhead. The appearance of the herbage is different: the hybrid-clover has bright and dark foliage, and that of the elegant is pale and unequal; the leaflets of the latter are also marked with a brown band like common clover, which is not the case with the hybrid. Another character of the hybrid is that, in the summer, when it begins to shed its blossoms, and during the autumn, the root throws out fresh foliage, arranged like a rosette; but in the elegant-trefoil this does not occur: it is the lateral branches which rest on the ground that supply the verdure. The hybrid-trefoil also flowers fifteen days earlier than the other, which, however, lasts the longest, and branches more; lastly the former is taller, more beautiful, and comes in earlier; but when the latter has arrived at perfection, having more numerous stems, well covered with branches, and more solid, it will, when mown, yield as great a produce as the former. The hybrid-trefoil has been a great deal used by M. de Kruns in the formation of artificial fields at Orebro in Sweden, and it has succeeded well; it has grown from three to four feet high, and has yielded, during about twenty years, often more than 100,000 pounds per tunnland (about an acre and a quarter English), and always upwards of 5,000 for the first ten years. It is regarded as a plant equally suitable to cultivate for mowing and for pasturage; strong moist soils, argillaceous or calcareous, suit it well; it frequently comes spontaneously on lands in Sweden that have been drained. The elegant-trefoil is found in abundance on poor clayey strong soils, where it grows thick and vigorous; it is wild in France in many places, not unfrequently in ferruginous sand. It seems very probable that the species will one day form valuable additions to our forage plants, as they appear as though they would succeed on land unsuitable for clover, lucerne, and sainfoin.——*Edin. Journ. of Ag.*

Application of Lime.—It seems clear, from all that has been said and done about lime, that it should be very cautiously used on light land, and that even on strong land great damage *may* be done, though it may not be perceived. Last summer I applied 120 bushels per acre to 24 acres, but I am convinced it was not *economical* to do so. The land was strong clay, and not drained. I intend in future to drain first, and make more moderate applications and oftener. I am convinced that the great value of some limestones depends on the phosphoric acid they contain, though I certainly do not, like Liebig, estimate the value of *turnips* by the quantity of this substance they contain.—*Ib.*

Application of Steam Power to Agriculture.—At a late meeting of the Farmer's Club at Wakefield, Mr. Heanley said: Steam power is one of the agents which has advanced the manufacturing, the mining, and the maritime interests of our country. Why is it not applied to agriculture? A great saving can be effected by using steam for thrashing, grinding, chopping hay or straw, and steaming food for cattle:—On thrashing corn by steam power, the saving is 2*d.* per load, for if wheat costs 5*d.* per load by horse power, it can be thrashed for 3*d.* per load by steam. I speak from experience of the last two years. Another advantage is a portion of the crop might be thrashed out immediately as it is carried from the field; Wheat carried immediately from the field measures better than at any other time; and in this respect is in the most profitable state for selling upon the general average of years. By the application of steam thrashing the farmer would have it in his power to sell his corn at the time it fetches the highest price, and this could only be partially done by the application of horse-power.

I make the difference in cost of steam thrashing and that done by horses as follows.—

BY STEAM POWER SAY

3 men at 2*s.* per day,	£0	6	0
2 women at 1*s.* do.,	0	2	0
2 lads at 6*d.* and 8*d.* do.	0	1	2
Oil for machine and engine,	0	0	10
Coals and slack for engine fire,	0	1	6
Allow for wear and tear,	0	3	6
	£0	15	0

Thrashing 60 loads per day would be 3*d* per load.

BY HORSE POWER.

3 men at 2*s.* per day,	£0	6	0
2 women at 1*s.* do.,	0	2	0
2 lads at 6*d.* and 8*d.* do.,	0	1	2
Oil,	0	0	4
8 horses at 2*s.* do.,	0	16	0
	£1	5	6

Which makes it cost a fraction more than 5*d.* per load of 3 bushels.

	£	*s.*	*d.*
The cost of an engine and thrashing-machine fixed ready for work is,	125	0	0
The cost of horse thrashing-machine, &c.. about	90	0	0
Extra cost of engine,	35	0	0

Mr. Andrews, of Kirkham Lodge, said: I calculate a horse cannot last on an average above 15 years, whilst an engine with moderate care will last 100 years. Horses, whether working or not, are expensive in keeping; but when an engine stands still, it is costing nothing. A four-horse engine will do more work than eight horses—I mean yoked at the same time—for they never are all of one mind for pulling together. I recollect once employing 18 horses to do some work, that is, six at a time, in three sets, relieving each other as they required it; but it proved tiring work. I put up a six-horse engine and it did the same work well. Ten per cent. upon the first cost will keep an engine in repair which works every day for 20 years; but the cost of those used for farming purposes, as has been stated, may be about 7 per cent.—*Gar. Chron.*

Large Strawberries again.—The Rev. E. Smythe, of Elkington, near Louth, Lincolnshire, informed me that he cut one a short time ago, weighing 2⅛ oz., and that at the same time there were two others partially destroyed, which he is quite sure would have weighed as much. This one of 2⅛ oz. measured 9⅛ inches in circumference. It was seen by several gentlemen, there being at that time a cricket match close by. Mr. Smythe also says, that during the season he thinks he had eight which would have weighed 2 oz. each. I believe Mr. Smythe adopted the method I have done some time with every kind of strawberry; it is the late Mr. Knight's plan. Runners are taken from an old bed, and planted in the spring; no runners or blossoms are allowed for the first year. The second year of growth is their first and last for bearing fruit. In consequence of the organizable matter stored up in the plants during a full summer's growth, without any abstractions by runner or blossom, a greater quantity of fruit, and superior in quality, will be obtained the first bearing season than during any future season; therefore, my motto is, why not always have the most fruit, and crop strawberries like any other vegetable? *Ibid.*

To make Potato Starch.—Potato starch is made by cleansing the tubers, grating or rasping them, and washing the pulp so produced in a sieve; the water as it runs through the sieve carries with it the starch, which settles to the bottom if the water is allowed to stand for a short time, in a tub or vat. The water having been poured off, fresh water is added, and the starch stirred up and again allowed to settle, after which the water is poured off, the starch set to drain, and finally dried. The sound parts of diseased potatoes may be used for this purpose, but the starch must be well washed, and not suffered to remain longer than possible in the first liquid; and the slime or foul scum which collects at the top of the deposited starch must be carefully removed, otherwise the starch will be very liable to spoil. No more potato pulp should be made than can be washed at once, and the pulp should be washed as soon as possible, because, if kept, it very soon begins to ferment and putrify.—*Ibid.*

Superior Method of Preparing Potatoes for Feeding Stock.—Mr. Böggild of Copenhagen, washes his potatoes well, steams them thoroughly, and then, *without allowing them to cool*, he cuts them in a cylinder furnished internally with revolving knives, or crushes them in a mill, and mixes them with a small quantity of water and three pounds of ground malt to every 100 lbs. of the raw potatoes. This mixture is kept in motion and at a temperature of 140° to 180° F., for from one to five hours, when the thick gruel has acquired a sweet taste and is ready for use. Given in this state, the results of experimental trials are said to be—1st, That it is a richer and better food for milk-cows than twice the quantity of potatoes in the raw state.—2d, That it is excellent for fattening cattle and sheep, and for winter food; that it goes much farther than potatoes when merely steamed; and that it may be economically mixed up with chopped hay and straw. *Edinburgh Jour. of Agriculture.*

Tallow and Train-Oil as a Salve for Sheep.—In the Highland and Agricultural Society's Transactions for 1844, pages 271-273, an article appeared, recommending the use of tallow and train-oil, in equal parts, as a salve for sheep; and, in reference to that article, a gentleman in Argyleshire, skilled in the management of sheep, writes as follows, under date the 9th July last: "The salve I used for my sheep last autumn (viz. one half tallow to an equal proportion of train-oil), has, in every respect, answered the description given of it in the Society's Transactions; and one of my tenants whom, with some persuasion, I got to smear thirty of his flock with that mixture, admits that they are in better condition than any of the others; that the wool will weigh as heavy as that done with tar and butter; and that he will get the price of white wool for it. The expense last year was a little greater than tar and butter, as I paid 1s. 6d. a pint for oil, and 6d. a pound for tallow, but this year I shall get oil for 1s. a pint, and if a quantity is required, at probably a lower price.—*Ib.*

Prodigious Mushroom.—A mushroom was recently gathered in a pasture adjoining Brightnell Park which measured 3 ft. 4 in. in circumference, and weighed 1¼ lb.

Editor's Table.

Sale of Devon Cattle.—When attending the late State Cattle Show at Utica, and witnessing there the beautiful exhibition of pure North Devons belonging to Messrs. Beck, Garbutt, and Washburn, being the first, in any number, ever shown at the State Society, we felt certain that their sterling merits would soon be appreciated by our New York farmers. We are not surprised, therefore, in learning, by a friend from our western counties, that Messrs. S. M. Brown and G. A. Mason, of Elbridge, Onondaga County, on the 15th September, purchased of Messrs. Garbutt & Beck at their farm in Sheldon, Wyoming County, sixteen of their beautiful animals for the purpose of stocking their own farms in Onondaga. These animals consisted of seven breeding cows, one two year old, and one yearling heifers, two heifer calves, one yearling bull, and two bull calves, and one pair three year old matched steers. The prices, although comporting with the times, we learn, were satisfactory to both the sellers and purchasers.

These Devons are walking into the rich and heavy soils of our wealthiest agricultural regions, where the lordly Short-horns have long ago taken possession, and near which some of their most spirited breeders reside. But of the results of their trial, we have no fear. They will maintain their reputation and increase in the good opinion of the farmer and cattle-breeder wherever they are. Messrs. Brown & Mason are extensive farmers, who well understand what they are about, and we feel quite certain, that the interest they have shown in thus appropriating the Devons to their own use, will be abundantly rewarded in the future prosperity of their herd. We should have noticed in our last number, that the pen of six beautiful Devon bull calves shown by Mr. Washburn, of Otsego, were all sold at good prices on the ground, to practical farmers, for the improvement of their own herds. Indeed, we have no doubt that this one exhibition of Devons at Utica has given them greater favor with the public than they have won in the hands of their breeders for the last ten years put together.

The beautiful exhibition of Devons at the late show of the State Agricultural Society, was the result of the wisdom of the Executive Committee in enlarging last year the premium list for the different breeds of cattle, without which scarcely a Devon would ever have been on the ground, and to that exhibition is to be credited the sales which we have chronicled. Success, say we, to the Devons, and to their spirited breeders.

Working Oxen.—We learn, also, that the Messrs. Wadsworth, of Geneseo, who took the first premium for the ten best yoke of working oxen, sold every pair of them on the ground at liberal prices. They were superb animals all, and their ready sale shows that such spirited exertions will be abundantly sustained by a discriminating public. Would time permit, we could also notice many other sales of stock, which, we learn, were made at prices satisfactory to both sellers and purchasers. Another year we hope to have an accurate report of all the business transactions of the "three great days" of the State Cattle Show. There is no calculating the value of these State exhibitions to the farming community, and we count upon a heavy increase in the future sales at the annual cattle shows. Let one day—an additional one, and the last—be set apart for this purpose by the Society, and we will be bound it will be among the most useful and profitable of all.

Colman's European Agricultural Tour.—Part IV. of this excellent work has been laid upon our table. Published by A. D. Phelps, Boston. Saxton & Miles, Agents in New York. We are glad to see that Mr. Colman has at length come to the more practical part of the agriculture of Great Britain, and has made this, according to our views, the most valuable number of his Tour yet issued. We have so often spoken of the merits of this work, and it has become so well known to our readers, that a more extended notice of it will not be demanded from us.

Views, with Ground Plans, of the Highland Cottages at Roxbury. Designed and erected by Wm. Bailey Lang. For sale by Saxton & Miles, 205 Broadway, and the Booksellers generally in this city. Price $1 50. This is a beautiful quarto, containing twelve lithographic views of cottages and their ground plans, an observatory, rural bowers, &c. As a specimen of the elegant manner in which it is got up we would refer to Bute Cottage, page 345 of this number of the Agriculturist. Mr. Lang deserves much credit for his enterprise in publishing this work, and we think it will have a salutary influence in improving the public taste in rural architecture. We are under obligations to Samuel C. Hills, Esq., No. 12 Platt street, for our copy of the above views, he taking great interest in such matters.

Peach Culture in Delaware.—This has become an enormous business, Major Reybold, of Delaware city, being the largest producer of them in this country. A friend informs us, that he and his four sons shipped in a single day in August last, 5,420 baskets, holding about three pecks each, from their orchards.

The Reybold family have about 1200 acres in peach trees. The total amount that they have sent to market this season we cannot state; but on the 1st of September, it had reached the enormous number of *sixty-five thousand* baskets. On the 9th of October, they were still gathering the crop. During the most busy part of the picking season, they chartered a large steamboat to carry their peaches to the New York market. We have only mentioned one family, of the many engaged in this business. It would be very interesting if we could have the total amount of peaches that have been sent from Delaware during the season of 1845. We intended to visit that county the past season, but have been prevented doing so. We hope to bring it about another year.

The Bound Volumes of the American Agriculturist.—These can be had at the Agricultural Warehouse of Mr. J. Thompson, Charleston, S. C., who will also receive subscriptions for the same in numbers.

Mr. Solon Robinson wishes us to say, in explanation to his Agricultural friends in this vicinity, that his continued ill health has prevented his calling on many to whom he was under obligations to do so. He is now on his way home, and will leave there on his Southern tour on the 1st of December.

To Agricultural Societies.—We received many invitations the past month to attend the annual meetings of various Agricultural Societies; but from our numerous engagements at home, it was not possible to accept them. We are much obliged to our friends for their polite invitations, and are happy to learn that an increased attention is being paid, throughout the country, to agricultural meetings of all kinds. Owing to the crowded state of our columns, and the expectation of our readers that we shall publish such articles as more generally interest them, we are precluded from taking as much notice of county Agricultural Societies, as we should be glad to do if our paper possessed more of a local character.

To Correspondents.—Philetus Phillips, E. S., John P. Norton, S. S. W. Vick, R. L. A., Improver, are received. The second No. of the articles on the Herefords and the farm management of Mr. Sotham is in hand, but owing to the absence of the writer from the city, was too late for this number. It will appear in our next.

REVIEW OF THE MARKET.

PRICES CURRENT IN NEW YORK, OCTOBER 25, 1845.

ASHES, Pots,	per 100 lbs.	$3 87½	to	$3 94
Pearls,	do.	4 12½	"	4 19
BALE ROPE,	lb.	5	"	7
BARK, Quercitron,	ton,	24 00	"	24 50
BEANS, White,	bush.	1 12	"	1 25
BEESWAX, Am. Yellow,	lb.	28	"	33
BOLT ROPE,	do.	12	"	13
BONES, ground,	bush.	40	"	55
BRISTLES, American,	lb.	25	"	65
BUTTER, Table,	do.	16		25
Shipping,	do.	9	"	13
CANDLES, Mould, Tallow,	do.	9	"	11
Sperm,	do.	25	"	38
Stearine,	do.	20	"	25
CHEESE,	do.	4	"	8
COAL, Anthracite,	2000 lbs.	5 00	"	6 00
CORDAGE, American,	lb.	11	"	12
COTTON,	do.	6	"	10
COTTON BAGGING, Amer. hemp,	yard,	13	"	14
Kentucky	do.	12	"	13
FEATHERS,	lb.	26	"	34
FLAX, American,	do.	7	"	8
FLOUR, Northern and Western,	bbl.	5 50	"	5 75
Fancy,	do.	6 00	"	6 25
Southern,	do.	5 25	"	5 50
Richmond City Mills,	do.	6 25	"	6 38
Rye,	do.	3 62	"	3 75
GRAIN—Wheat, Western,	bush.	1 10	"	1 20
Southern,	do.	1 00	"	1 10
Rye,	do.	73	"	75
Corn, Northern,	do.	67	"	68
Southern,	do.	65	"	66
Barley,	do.	67	"	69
Oats, Northern,	do.	42	"	43
Southern,	do.	35	"	38
GUANO,	100 lbs.	2 25	"	3 00
HAY, in bales,	do.	70	"	80
HEMP, Russia, clean,	ton,	175 00	"	180 00
American, water-rotted,	do.	105 00	"	185 00
American, dew-rotted,	do.	75 00	"	125 00
HIDES, Dry Southern,	lb.	9	"	11
HOPS,	lb.	12	"	16
HORNS,	100.	1 00	"	7 00
LEAD,	lb.	4 38	"	4 75
Sheet and bar	do.	4¾	"	5½
MEAL, Corn,	bbl.	3 00	"	3 12
Corn,	hhd.	14 00	"	14 25
MOLASSES, New Orleans,	gal.	23	"	27
MUSTARD, American,	lb.	16	"	31
NAVAL STORES—Tar,	bbl.	1 87	"	2 00
Pitch,	do.	1 25	"	1 38
Rosin	do.	80	"	90
Turpentine,	do.	2 75	"	3 25
Spirits Turpentine, Southern,	gal.	48	"	50
OIL, Linseed, American,	do.	67	"	68
Castor,	do.	57	"	68
Lard,	do.	70	"	75
OIL CAKE,	100 lbs.	1 00	"	——
PEAS, Field,	bush.	1 25	"	1 50
PLASTER OF PARIS,	ton,	2 50	"	2 62
Ground, in bbls.,	of 300 lbs.	1 12	"	1 25
PROVISIONS—Beef, Mess,	bbl.	7 00	"	9 00
Prime,	do.	4 50	"	5 50
Smoked,	lb.	6	"	9
Rounds, in pickle,	do.	4	"	6
Pork, Mess,	bbl.	12 00	"	14 00
Prime,	do.	9 00	"	11 00
Lard,	lb.	8	"	8¾
Bacon sides, Smoked,	do.	3	"	4
In pickle,	do.	3	"	4
Hams, Smoked,	do.	6	"	10
Pickled,	do.	4	"	7
Shoulders, Smoked,	do.	5	"	6½
Pickled,	do.	4½	"	5
RICE,	100 lbs.	4 75	"	5 50
SALT,	sack,	1 30	"	1 35
Common,	bush.	20	"	35
SEEDS—Clover,	lb.	8	"	9½
Timothy,	7 bush.	14 50	"	21 00
Flax, rough,	do.	8 50	"	9 00
clean,	do.	10 50	"	10 75
SODA, Ash, cont'g 80 per cent. soda,	lb.	3	"	3
Sulphate Soda, ground,	do.	1	"	—
SUGAR, New Orleans,	do.	5	"	8
SUMAC, American,	ton,	35 00	"	37 50
TALLOW,	lb.	7	"	8
TOBACCO	do.	3	"	7
WHISKEY, American,	gal.	26	"	27
WOOL, Saxony,	lb.	35	"	50
Merino,	do.	30	"	35
Half-blood,	do.	25	"	30
Common,	do.	20	"	25

NEW YORK CATTLE MARKET—Oct. 27.

At Market, 1850 Beef Cattle, 40 Cows and Calves, and 4000 Sheep and Lambs.

PRICES.—Beef Cattle were in poor request, and at the close a good many left over. Fair to best retailing may be placed at $5.50 *a* $5.75; with some extra at $6.

COWS AND CALVES.—All sold at $18*a*$30.

SHEEP AND LAMBS.—Sales at 75 *a* 2.25 for the latter, and $1 *a* 3.50 for Sheep. Left over 600 head.

HAY—Is brisk at 91 cts. *a* $1 per cwt. chiefly the latter rate.

REMARKS.—*Ashes* in moderate request. *Cotton*, brisk, and has recovered the late decline produced by the last news from England. Export since 1st September last, 59,558 bales; same time last year, 93,728; same time year before, 11,320. *Flour* is firm. Our readers will see that this great staple article has advanced about $1 per barrel within the past month, greatly to the benefit of the farmer. *Grain* of all kinds, brisk. *Corn*, quite scarce in market. *Hemp*, more inquiry. *Naval Stores*, an upward tendency. *Provision*, firm. *Seeds*, active. *Sugar*, quiet. *Tobacco*, the same. *Wool*, without change. Several lots have been sold for export.

Money remains plenty.

Stocks.—Quite buoyant.

The Weather.—We have had one cold turn this month, with sharp frosts; but we are now in the midst of a delightful Indian summer.

The Crops.—Pretty much everything at the north is now harvested. Potatoes have suffered much from the rot, and prove a short crop. Prices rule high. Corn, at the South, is very short. Cotton has sustained considerable injury from the rain and unusually early and severe frosts this month. Tobacco has been injured some by the frost; but upon the whole a fair crop. Rice has come in well. Sugar is very promising.

MAGNOLIAS FOR SALE.

Nurserymen and Gardeners, by making immediate application to A. B. ALLEN, at the New York Agricultural Warehouse, No. 187 Water street, can be furnished early next spring with trees of the Magnolia Macryphila and Grandiflora, at $50 per thousand. They will be carefully packed in boxes containing 500 or 1000 each, and will be forwarded from the South by the way of the Ohio river, as early as navigation opens, and delivered in the original packages, in good order, to purchasers.

SOLON ROBINSON, Agent for the Owner.

October, 1845.

PRINCE'S LINNÆAN BOTANIC GARDEN AND NURSERIES,

FLUSHING, NEAR NEW YORK.

The Great Original Establishment.

This nursery establishment is the largest in the Union, covering near 60 acres, and comprising the most extensive and select collection of Fruit and Ornamental Trees and Plants ever offered to the public—among which are more than 500 varieties of new and rare Fruits, and above 1,000 varieties of rare Flowering Shrubs and Roses, which are nowhere else to be found in America. The new descriptive Catalogues, with precise descriptions and directions for culture, and with reduced prices, will be sent to every post paid applicant, and orders will be executed with that accuracy and despatch which characterizes the whole establishment. Catalogues may be had of A. B Allen, 187 Water street; Saxton & Miles, 205 Broadway; and of Clark & Austin, Agents, 130 Fulton street, and orders left with them, or sent per mail, will meet prompt attention.

WM. R. PRINCE & CO.

N. B. The public are cautioned against a deceptive use of our name and title, which they will find exposed on our catalogues.

LIVE HEDGES.

50,000 Maclura, or Osage Orange, for sale by the subscribers,

D. LANDRETH & FULTON,
Nurserymen, Philadelphia.

PERUVIAN GUANO.

Just received from the Peruvian Guano Company, warranted pure and of best quality. Price in bags, for any quantity not *less* than ten tons, $50 per ton, of 2,240 lbs.

EDWIN BARTLETT.

Nov. 1st. 42 South street.

GRANT'S PATENT FAN-MILL RIGHTS FOR SALE.

The subscriber offers to sell the Patent-right of his Improved Fan Mill, to counties where the right is not already disposed of. The letters patent are dated July 10th, 1845. Letters addressed to L. T. Grant, at the junction P. O., Rensselaer Co., New York, post paid, where the Mills are manufactured, will receive immediate attention. They may be seen at the Agricultural Warehouse of A. B. Allen, 187 Water street, New York.

STALK AND STRAW CUTTERS.

Sinclair's Stalk and Straw Cutters,			price $25 to $35.
Hovey's	do.	do.	$10 to $35.
Stevens'	do.	do.	$10 to $20.
Other kinds for straw and hay,			$3 to $7.

s A. B. ALLEN, 187 Water St., N Y.

VALUABLE WORKS,

BY A. J. DOWNING, Esq.

1. *The Fruits and Fruit Trees of America;* or the Culture, Propagation, and Management, in the Garden and Orchard, of Fruit Trees generally; with descriptions of all the finest varieties of Fruit cultivated in this country: one thick vol. 12mo. Fifth edition; with many engravings, $1 50. Or a superior edition in large 8vo., to match the author's other works, $2 50.

"It is with feelings of more than ordinary gratification that we announce the appearance of this invaluable work. We are sure that none of our readers will be in the least disappointed with its contents, notwithstanding the high expectations which have been raised by the known abilities of its author. A deliberate examination of the work enables us to say, without hesitation, that it is by far the greatest acquisition placed within the reach of American cultivators of fruit which has ever appeared."—*The Cultivator.*

"This is a valuable practical work, and every orchardist and every fruit-grower should possess himself of its stores of information."—*U. S. Gazette.*

2. *A Treatise on Landscape Gardening;* adapted to North America, with a view to the improvement of Country Residences. Comprising historical notices, and general principles of the art; directions for laying out grounds, and arranging plantations; description and cultivation of hardy trees; decorative accompaniments to the house and grounds; formation of pieces of artificial water, flower-gardens, etc.; with remarks on Rural Architecture. New edition, with large additions and improvements, and many new and beautiful illustrations. 1 large vol. 8vo. $3 50.

"This volume, the first American treatise on this subject, will at once take the rank of *the* standard work."—*Silliman's Journal.*

"Downing's Landscape Gardening is a masterly work of its kind,—more especially considering that the art is yet in its infancy in America."—*London's Gardener's Magazine.*

3. *Designs for Cottage Residences;* adapted to North America, including Elevations and Plans of the Buildings, and Designs for Laying out Grounds. 1 vol. 8vo. with very neat illustrations. Second edition, revised. $2 00.

The "Cottage Residences" seems to have been equally well-timed and happily done. Country gentlemen, no longer limited to the meagre designs of uneducated carpenters, are erecting agreeable cottages in a variety of styles suited to the location or scenery. Even in the west and south there are already many striking cottages and villas built wholly, or in part, from Mr. Downing's designs; and in the suburbs of some of the cities, most of the new residences are modified or moulded after the hints thrown out in this work.

4. *Gardening for Ladies;* and companion to the Flower-Garden. Being an Alphabetical arrangement of all the ornamental Plants usually grown in gardens and shrubberies; with full directions for their culture. By Mrs. Loudon. First American, from the second London edition. Revised and edited by A. J. Downing. 1 thick vol. 12mo., with engravings representing the processes of grafting, budding, layering, &c., &c. $1 25.

"A truly charming work, written with simplicity and clearness. It is decidedly the best work on the subject, and we strongly recommend it to all our fair countrywomen, as a work they ought not to be without."—*N. Y. Courier.*

Published and for sale by
WILEY & PUTNAM.

N. Y. AGRICULTURAL WAREHOUSE.

Having taken the commodious store, No. 187 Water Street, the subscriber is now opening the LARGEST AND MOST COMPLETE assortment of Agricultural Implements of all kinds, ever yet offered in this market. Most of these are of new and highly improved pattern, warranted to be made of the best materials, put together in the strongest manner, of a very superior finish, and offered at the lowest cash prices.

SEEDS FOR THE FARMER.

Such as Improved Winter and Spring Wheat, Rye, Barley, Oats, Corn, Beans, Peas, Rutabaga, Turnip, Cabbage, Beet, Carrot, Parsnep, Clover and Grass-seeds, improved varieties of Potatoes.

WIRE-CLOTHS AND SIEVES.

Different kinds and sizes constantly on hand.

FERTILIZERS.

Peruvian and African Guano, Poudrette, Bonedust, Lime, Plaster of Paris, &c.

FRUIT AND ORNAMENTAL TREES AND SHRUBS.

Orders taken for these, and executed from a choice of the best Nurseries, Gardens, and Conservatories in the United States.

HORSES, CATTLE, SHEEP, SWINE AND POULTRY.

Orders executed for stock of all kinds, to the best advantage.

The subscriber requests samples sent to him of any new or improved Implements, Seeds, &c., &c., which, if found valuable, extra pains will be taken to bring them before the public.

A. B. ALLEN, 187 Water Street, New York.

CARTER POTATOES.

These Potatoes, so far as heard from them in this vicinity, have remained proof against the rot. They are of superior quality for the table and good yielders. Price, $3 per barrel.

A. B. ALLEN, 187 Water st. N. Y.

THE AMERICAN AGRICULTURIST.

TERMS—One Dollar per year in advance; single numbers, Ten Cents; three copies for Two Dollars.

Published Monthly, by SAXTON & MILES, 205 Broadway, New York, containing 32 pages, royal octavo.

Each number of the Agriculturist contains but One sheet, and is transported by mail under the same regulations as newspapers, viz.: *free* any distance not over 30 miles from its place of publication; over this and within 100 miles, or to any town in the State of New York, *one cent* postage on each number, and *one and a half cents* if over 100 miles, without the State.

It is so much trouble to get a post office order paid, and it requires so much formality, that subscribers will please hereafter remit all moneys directly to Saxton and Miles, at their risk and expense; taking care, if possible, that the package does not exceed the weight of a half ounce, thus subjecting them to single postage only. Agents also will please bear this in mind.

Editors of newspapers noticing the numbers of this work monthly, or advertising it, will be furnished a copy gratis, upon sending such notice to this office.

Volumes I., II. and III. of THE AMERICAN AGRICULTURIST, with tables of contents complete, for sale at $1.00 each; elegantly and uniformly bound in cloth, $1.25. These are handsome, tasteful books, and make very desirable premiums for distribution with Agricultural Societies, and should also find place in all our District School Libraries. They constitute the best and most complete treatise on American farming, stock-breeding, and horticulture, extant. When several copies are ordered, a liberal discount will be made.

AGENTS FOR THE AMERICAN AGRICULTURIST.

Philadelphia.....J. M. Campbell.
Washington, Pa.....Dr. R. R. Reed.
Albany, N. Y.....E. H. Pease.
Syracuse, N. Y....Stoddard & Babcock and L. W. Hall.
Auburn, N. Y.....J. C. Derby & Co.
Rochester, N. Y.....C. F. Crossman.
Buffalo, N. Y.....J. H. Butler & Co.
Boston, Mass.....Saxton & Kelt.
Milwaukie, Wis. Ter.....Hale & Hopkins.
Chicago, Ill.....S. F. Gale & Co.
St. Louis, Mo.....Halsall & Collet.
Louisville, Ky.....Morton & Griswold. / George Lapping & Co.
New Orleans.....D. Baker & Co. and N. Steele.
Cincinnati, Ohio.....W. H. Moore & Co.
Charleston, S. C.....J. Thompson.
Athens, Geo.....J. J. Richards.
Norfolk, Va.....J. Vickery, Jr.
Natchez, Miss.....G S. Tainter.
Woodland, La., East Feliciana.....Rev. A. W. Pool.

General Travelling Agents, SOLON ROBINSON, ALONZO SHERMAN.

Bound volumes can be obtained of any of our Agents at $1.25 per volume.

CONTENTS OF NOVEMBER NUMBER.

Cellars; Dry Stables for Cattle.....329
To Economise Food for Stock; To prevent Tools from Rusting; Laws for the Destruction of Noxious Weeds; American Agricultural Association.....330
Eighteenth Annual Show and Fair of the Amer. Institute...331
General Agency of the Amer. Agriculturist; Look to the Leaks in your Buildings; Italian Grape Vines; The Osage Orange for Hedges.....332
Casts of a Prize Short-Horn Heifer; How to sustain and Improve the Quality of the Soil.....333
Agricultural Periodicals.....334
Care of Tools; Benefits of Irrigation; A Crazy Farmer.....335
The Stable, No. 5.....336
Sheep for the South; Sale of Rambouillet Sheep; Benefit of Sub-soil Plowing.....337
Agriculture in Scotland, No. 13, John P. Norton.....338
Cane-Brake Lands, S. S. W. Vick.....339
Ag. Affairs in Michigan and Ohio, No. 1, R. L. A.....340
Lime in Virginia, A. Nicol; Large Fleeces, L. G. Bingham.....342
Vintage of Ohio, N. Longworth; Plowing Ridges, J. B.; Fruits in Mississippi, John J. M'Caughan.....343
Grant's Patent Fan Mill.....344
Ice Houses, Solon Robinson; Bute Cottage; Culture of Indigo, Philip Winfree and Wm. Partridge.....345
Scientific Farming, A Young Farmer; Galloway Cattle, R.....347
Agriculture of Maine, J. H. Jenne.....348
Culture of Flax, Flax Society.....349
Western Calendar for October, A. Beatty; Transactions of the State Ag. Society, A Member.....352
LADIES' DEPARTMENT: Advice to Western Emigrants, by Solon Robinson; Recipes.....354
BOYS' DEPARTMENT: The History of Thrift and Unthrift, A Friend to the Boys.....355
Foreign Agricultural News.....356
Editor's Table.....358
Review of the Market.....359